

HISTORY INFORMATION FOR THE FOLLOWING MANUAL:

SERVICE MANUAL

RA-6 CHASSIS

<u>MODEL NAME</u>	<u>REMOTE COMMANDER</u>	<u>DESTINATION</u>	<u>CHASSIS NO.</u>
KP-51HW40	RM-Y909	US	SCC-P65G-A
KP-51HW40	RM-Y909	Canadian	SCC-P65G-A
KP-57HW40	RM-Y909	US	SCC-P65F-A
KP-57HW40	RM-Y909	Canadian	SCC-P65F-A

ORIGINAL MANUAL ISSUE DATE: 8/2001

ALL REVISIONS AND UPDATES TO THE ORIGINAL MANUAL ARE APPENDED TO THE END OF THE PDF FILE.

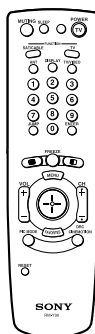
REVISION DATE	REVISION TYPE	SUBJECT
8/2001	No revisions or updates are applicable at this time.	
11/2001	Correction - 1	A Board P/N Corrected
1/2002	Supplement - 1	New CRT Introduced - Affects S/N's 9000001 - 90XXXXXX
2/2002	Supplement - 1	Reissued to show corrected Page 26
5/2002	Correction - 2	U Board P/N Corrected on Electrical Parts List - Page 106
8/2002	Correction - 3	Correction to Exploded View Cover parts list to indicated location and new part numbers for Screen Holders - Page 95
12/2002	Correction - 4	Electrical Parts List - P/N Correction on D Board
7/2003	Correction - 5	Electrical Parts List - P/N Correction/Addition on G Board - Page 128-130
11/2003	Supplement-2	Note added to clarify correct CRT replacement Part Number depending on S/N range

COLOR REAR VIDEO PROJECTOR
SONY®

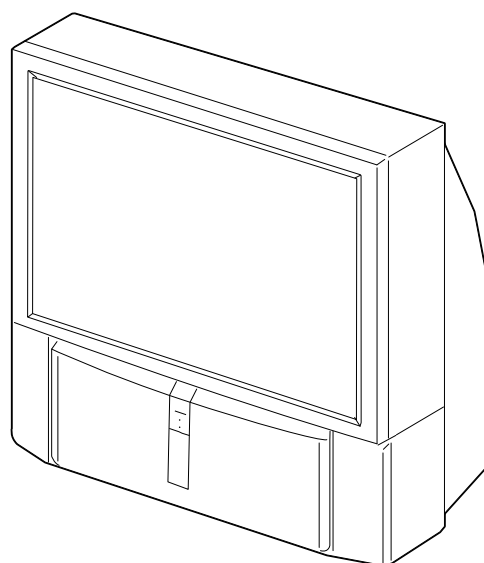
SERVICE MANUAL

RA-6 CHASSIS

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>	<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
KP-51HW40	RM-Y909	US	SCC-P65G-A				
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KP-57HW40	RM-Y909	Canadian	SCC-P65F-A				



RM-Y909



KP-51HW40/57HW40

COLOR REAR VIDEO PROJECTOR
SONY®

SAFETY CHECK-OUT

(US model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any). Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

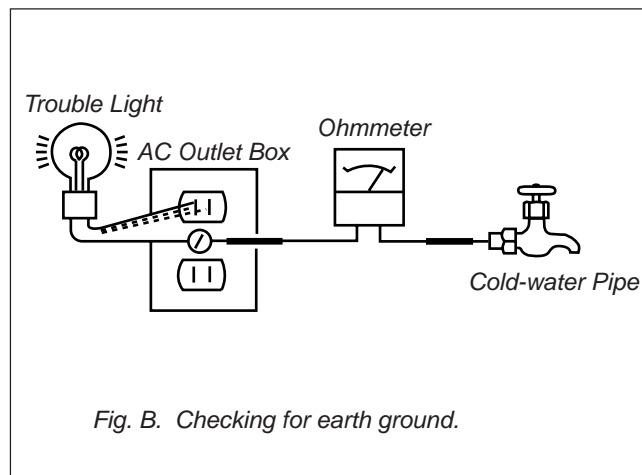
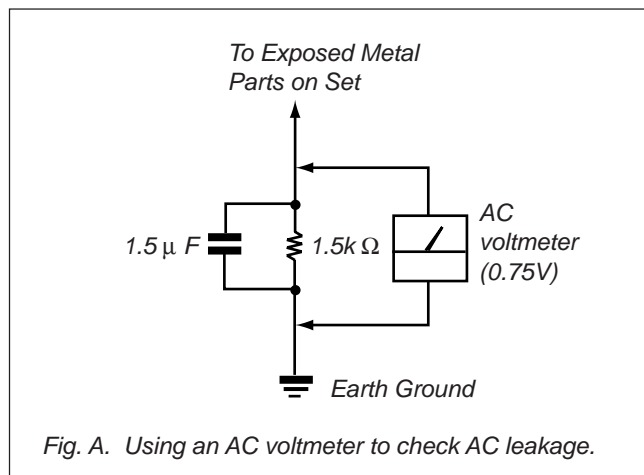
LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)



(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK \triangle ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

(ATTENTION)

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE DELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DEPANNAGE.

LE CHÂSSIS DE CE RECEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MAPQUE \triangle SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

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SECTION 1

SELF DIAGNOSIS FUNCTION

1. Summary of Self-Diagnosis Function

- This device includes a self-diagnosis function.
- In case of abnormalities, the TIMER/STAND BY indicator automatically blinks. It is possible to predict the abnormality location by the number of blinks. The Instruction Manual describes blinking of the TIMER/STAND BY indicator.
- If the symptom is not reproduced sometimes in case of a malfunction, there is recording of whether a malfunction was generated or not. Operate the remote command to confirm the matter on the screen and to predict the location of the abnormality.

2. Diagnosis Items and Prediction of Malfunction Location

- When a malfunction occurs the TIMER/STAND BY indicator only blinks for one of the following diagnosis items. In case of two or more malfunctions, the item which first occurred blinks. If the malfunctions occurred simultaneously, the item with the lower blink count blinks first.
- The screen display displays the results regarding all the diagnosis items listed below. The display “0” means that no malfunctions occurred.

Diagnosis Item	No. of times TIMER/STANDBY indicator blinks	Probable Cause Location	Detected symptoms
Power does not turn on	0	• Power cord is not plugged in. • Fuse is burned out (F6001) (G board)	• Power does not come on. • No power is supplied to the unit. • AC power supply is faulty.
+B overcurrent (OCP) (See Note 1)	2 times	• H. OUT (Q8024) is shorted. (D board) • +B PWM (Q8035, 8038) is shorted. (D board)	• Power does not come on. • Load on power line is shorted.
+B overvoltage (OVP)	3 times	• IC501 is faulty (G board) • IC5002 is faulty (G board)	• Has entered standby mode.
Vertical deflection stopped	4 times	• +- 15V is not supplied. (D board) • IC8003 is faulty. (A board)	• Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
White balance failure (Not balanced)	5 times	• Video out (IC7101, 7201, 7301) is faulty. (CR, CG, CB board) • CRT drive (IC309) is faulty. (A board) • G2 is improperly adjusted. (See Note 2)	• No raster is generated. • CRT cathode current detection reference pulse output is small.
LOW B OCP/OVP (Overcurrent/over voltage) (See Note 3)	6 times	• +5 line is overloaded. (A, B boards) • +5 line is shorted. (A, B boards)	• No picture • No picture
Horizontal deflection stopped	7 times	• Q8035, 8038 is shorted. (D board)	
High voltage error	8 times	• T8005 is faulty. (D board)	
Audio error	9 times	• +- 19V line is shorted. (A, B boards) • IC708 is faulty. (A board) • PS701 or PS702 is opened. (A board)	• No sound

Note1: If a +B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously. The symptom that is diagnosed first by the microcontroller is displayed on screen.

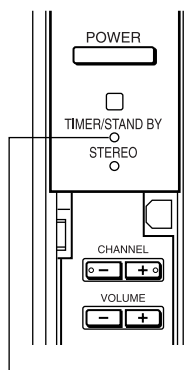
Note 2: Refer to Screen (G2) Adjustment in Section 3-1, 2 of this manual.

Note 3: If TIMER/STANDBY indicator blinks six (6) times, unplug the unit and wait 10 minutes before performing the adjustment.

3. Blinking count display of TIMER/STAND BY indicator

* One blink is not used for self-diagnosis.

< FRONT PANEL >



TIMER/STAND BY indicator

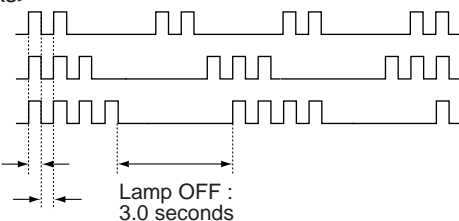
•EXAMPLE

<Diagnosis Items> <Number of Blinks>

- +B overcurrent 2 times
- +B overvoltage 3 times
- Vertical deflection stop 4 times

Lamp ON : 0.3 seconds

Lamp OFF : 0.3 seconds



Release of TIMER/STAND BY indicator blinking.

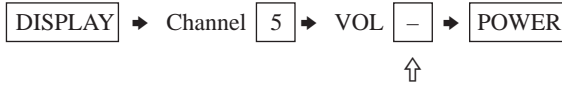
- The TIMER/STAND BY indicator blinking display is released by turning OFF the power switch on the TV main unit or removing the plug from the power.

4. Self-diagnosis screen displays

- In cases of malfunctions where it is not possible to determine the symptom such as when the power goes off occasionally or when the screen disappears occasionally, there is a screen display on whether the malfunction occurred or not in the past (and whether the detection circuit operated or not) in order to allow confirmation.

<Screen Display Method>

- Quickly press the remote command button in the following order from the standby state.



Be aware that this differs from the method of entering the service mode (volume +).

Self-diagnosis screen display

SELF DIAGNOSIS		
2 : +B OCP	N/A	
3 : +B OVP	N/A	
4 : V STOP	0	Numeral "0" means that no fault was detected.
5 : AKB	1	
10 : WDT	24	Numeral "1" means a fault was detected one time or more

5. Self-Diagnosis Screen Display

- The results display is not automatically cleared. In case of repairs and after repairs, check the self-diagnosis screen and be sure to return the results display to "0".
- If the results display is not returned to "0" it will not be possible to judge a new malfunction after completing repairs.

<Method of Clearing Results Display>

- Power off (Set to the standby mode)
- DISPLAY → Channel 5 → VOL + → POWER (Service Mode)
- Channel 8 → ENTER (Test reset = Factory preset condition)

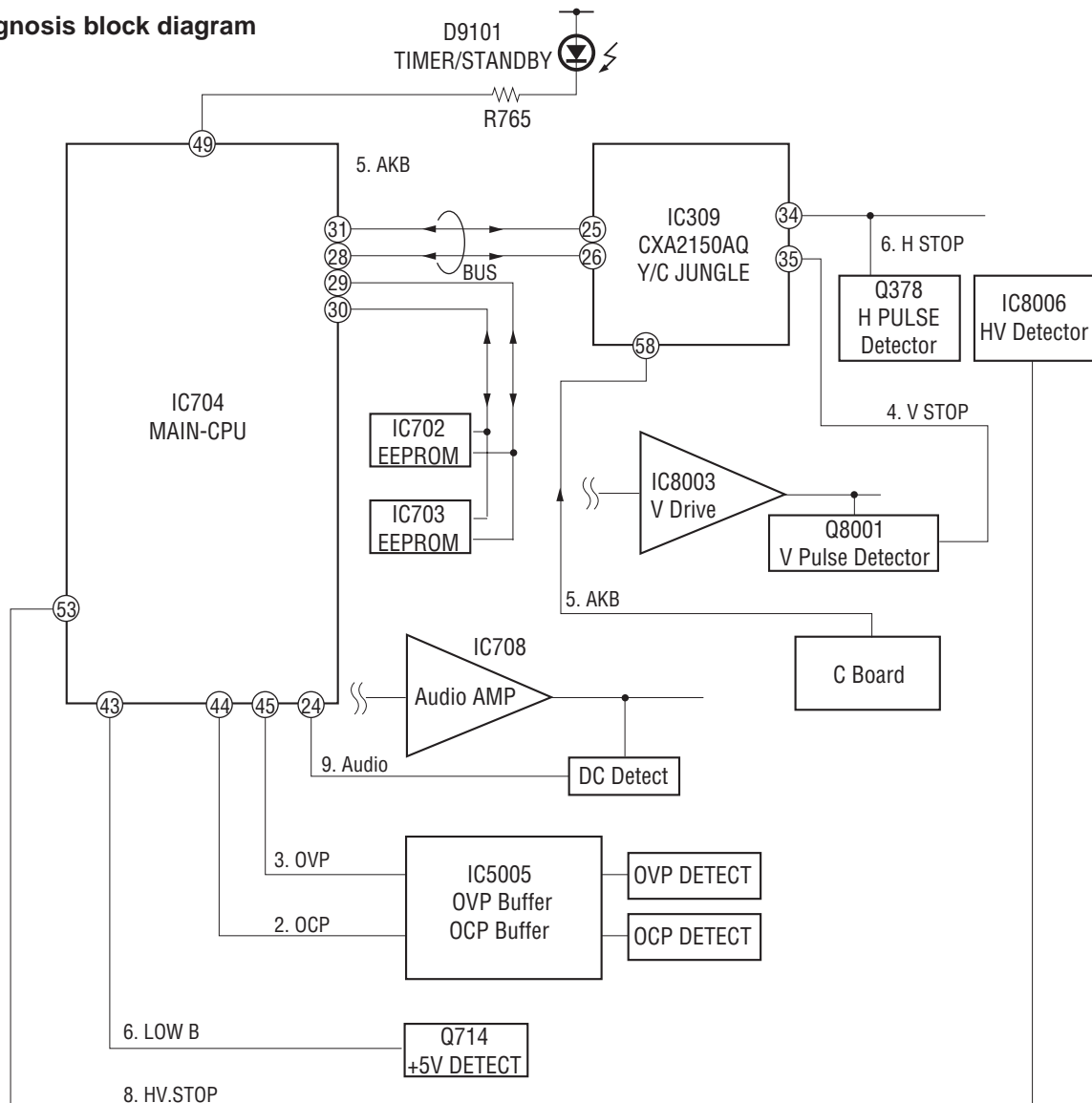
<Method of Ending Self Diagnosis Screen>

- When ending the self-diagnosis screen completely, turn the power switch OFF on the remote commander or the main unit.

6. Self-diagnosis function operation

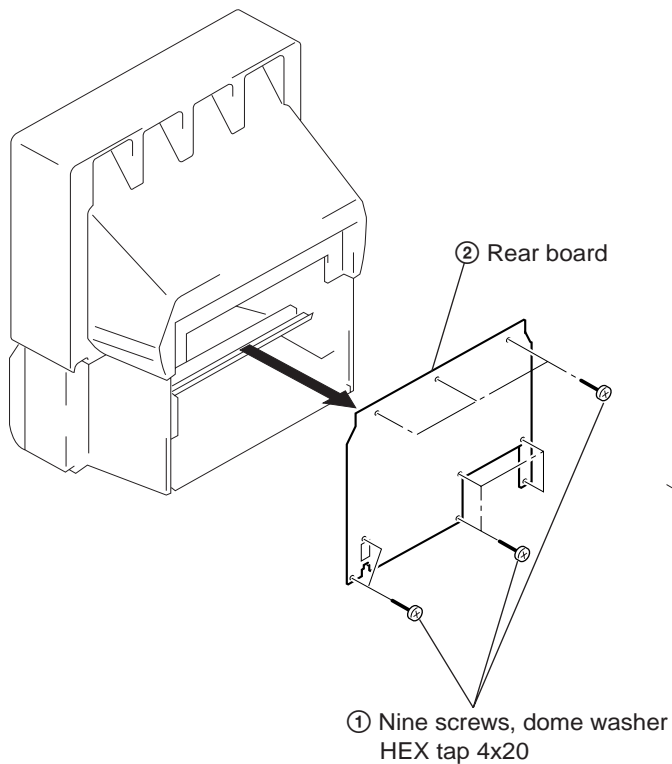
- OCF** Low B and +B line detect DET SHORT, and shut-down POWER ON RELAY.
Reset by turning power on/off.
In case of +B is loaded approx. 1.5A or more, microcomputer detects it via IC5005
- OVP** In case of +B becomes approx. 150V or more, POWER ON RELAY shuts down and microcomputer detects it via IC5005.
Reset by turning power on/off just the same as OCP.
- Low B** Occurs when set +5V is out
- V Stop** In case of V Drive disappeared, Q8001 detects it and shut-down POWER ON RELAY. Microcomputer detects it and makes LED blinking.
- AKB** IK detection. Makes LED blinking in case of microcomputer doesn't detect IK returns of IC309 (CXA2150AQ) 20 seconds or more.
- H Stop** In case of H DRIVE is disappeared, Q378 detects it and shut-down POWER ON RELAY shuts down.
Microcomputer receives H Stop data from Q378 and makes LED blinking.
- HV Stop** In case of HV becomes 33KV or more. IC8006 detects it and shut-down POWER ON RELAY. Microcomputer makes LED blinking.
- Audio** In case of DC component overlaps the output of Audio Amp., POWER ON RELAY shuts down.
Microcomputer detects it and makes LED blinking.

Self-diagnosis block diagram

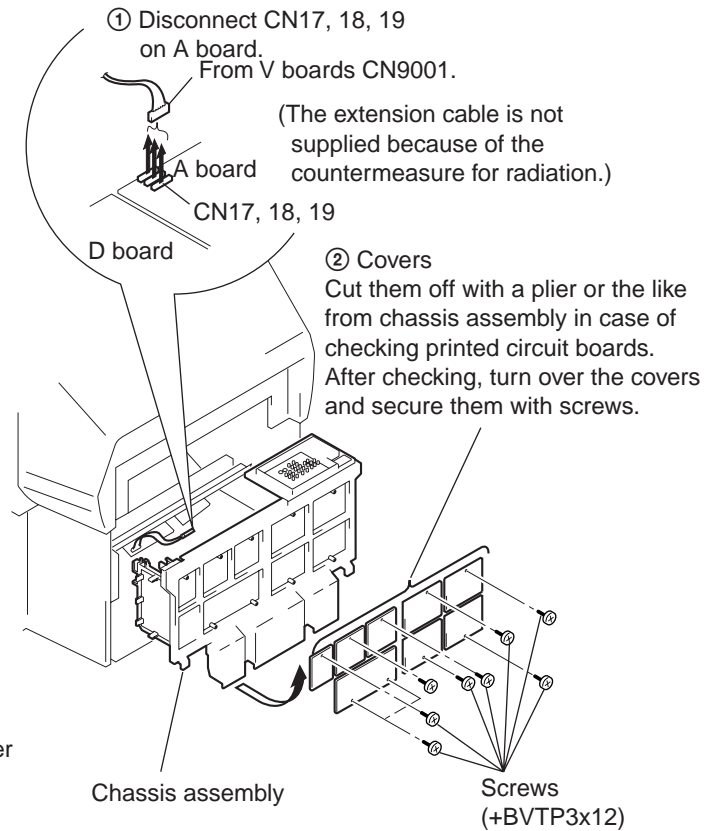


SECTION 2 DISASSEMBLY

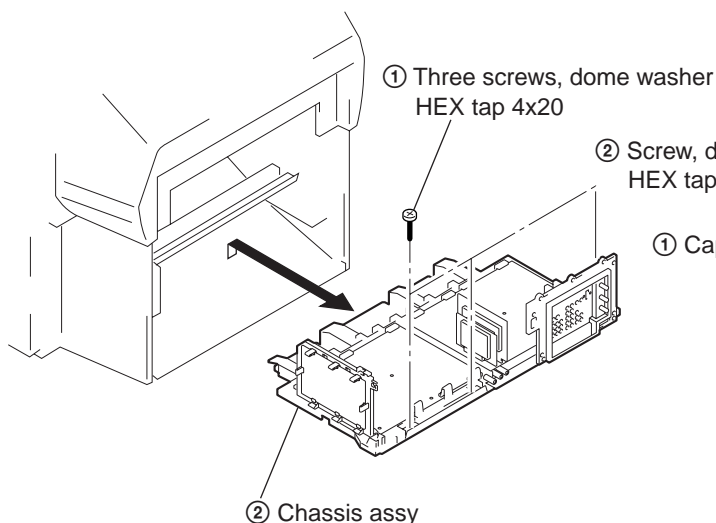
2-1. REAR BOARD REMOVAL



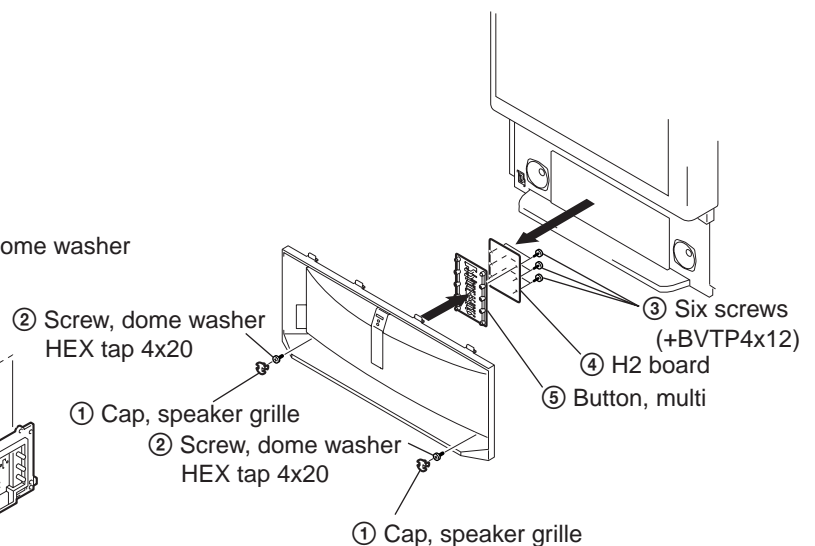
2-3. SERVICE POSITION



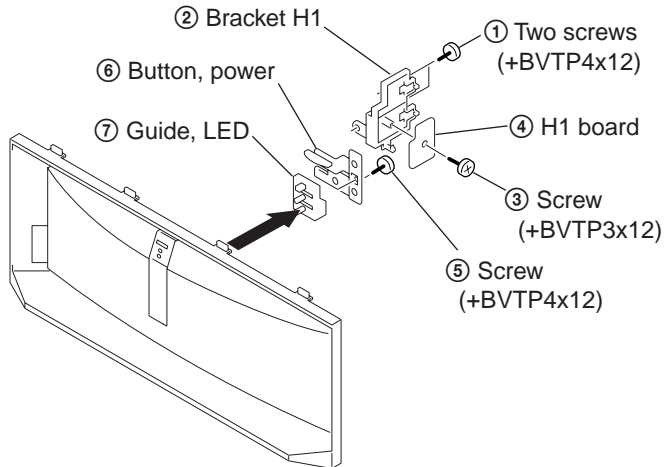
2-2. CHASSIS ASSY REMOVAL



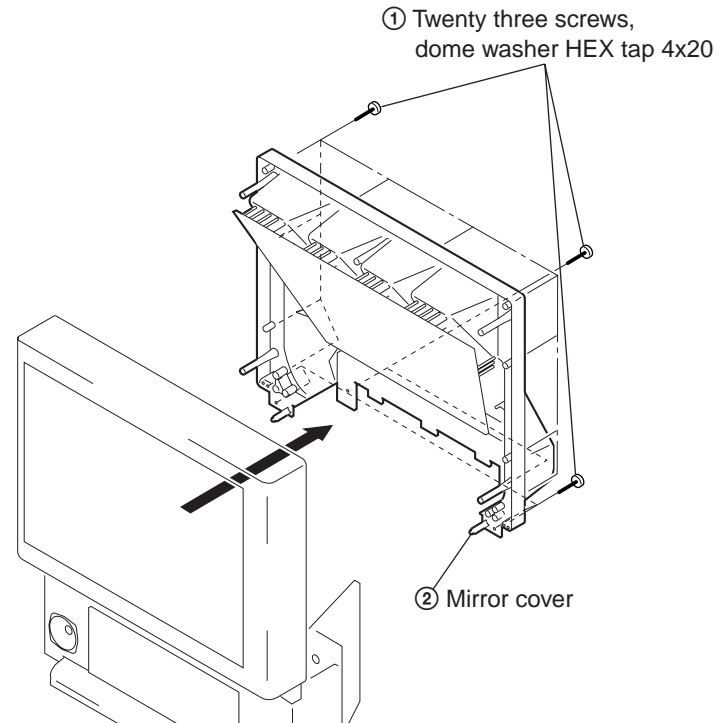
2-4. H2 BOARD REMOVAL



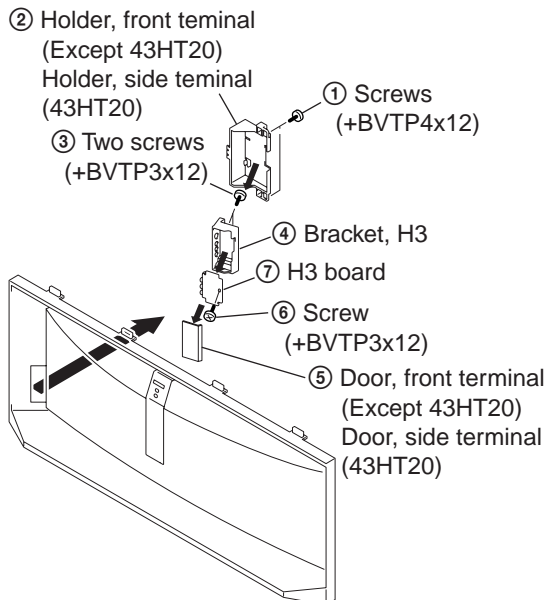
2-5. H1 BOARD REMOVAL



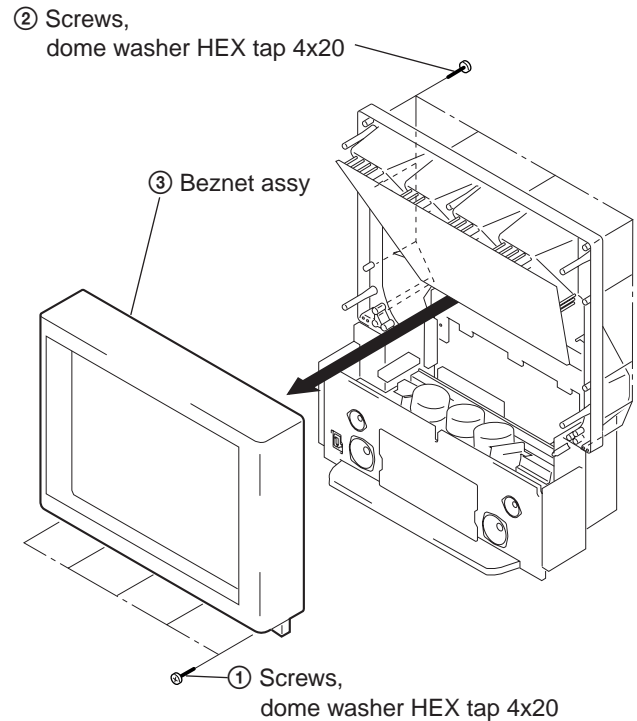
2-7. MIRROR COVER REMOVAL



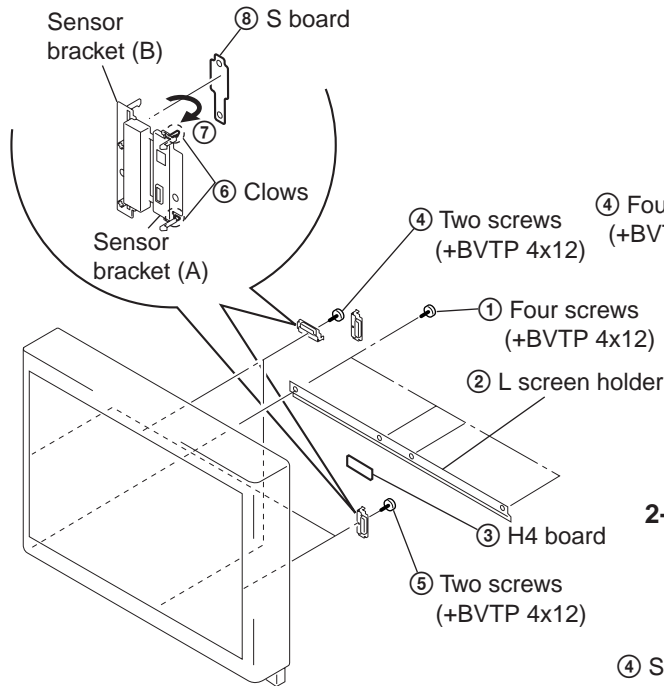
2-6. H3 BOARD REMOVAL



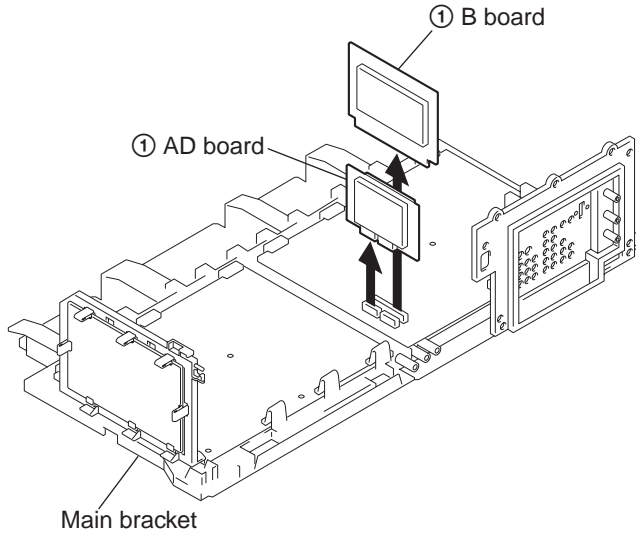
2-8. BEZNET ASSY REMOVAL



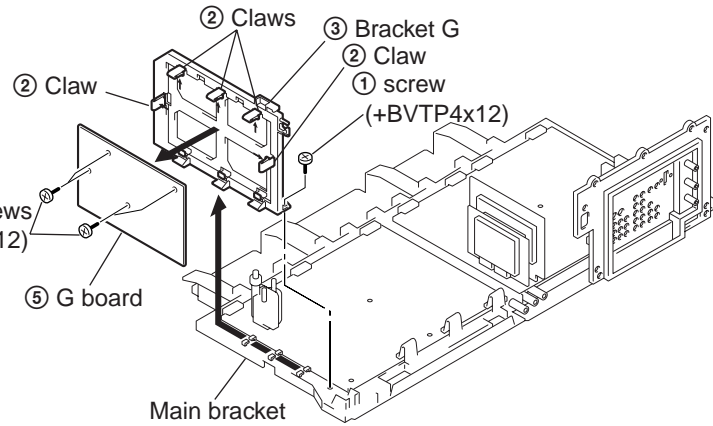
2-9. H4 BOARD AND S BOARD REMOVAL



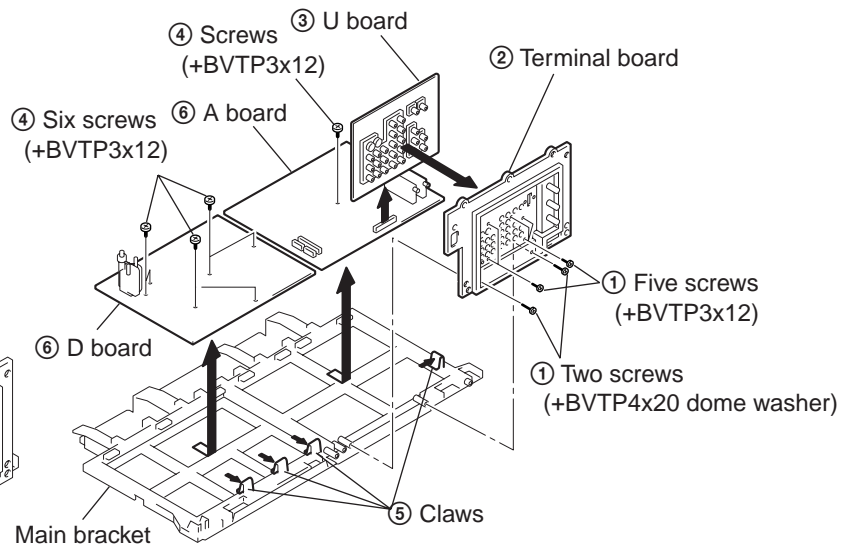
2-10. AD BOARD AND B BOARD REMOVAL



2-11. G BOARD REMOVAL

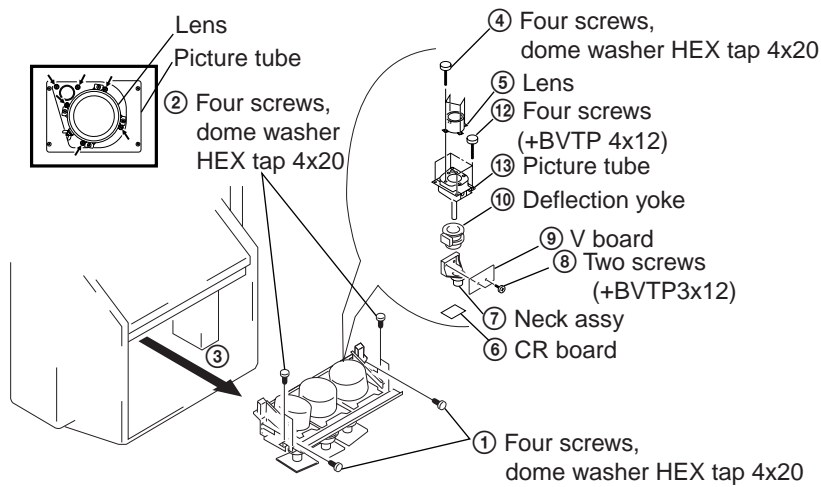


2-12. A BOARD, D BOARD AND U BOARD REMOVAL



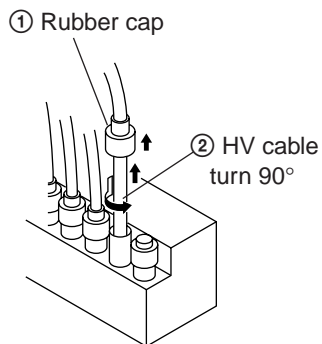
2-13. PICTURE TUBE REMOVAL

CAUTION: Removing the arrow-marked screws is strictly prohibited.
If removed, it may cause liquid spill.

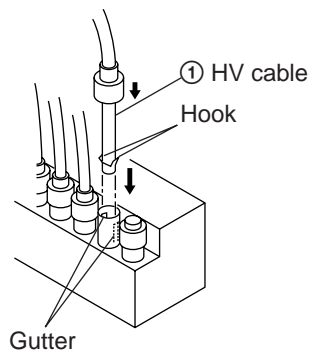


2-14. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL

(1) Removal



(2) Installation



SECTION 3

SET-UP ADJUSTMENTS

3-1. SCREEN VOLTAGE ADJUSTMENT (COARSE ADJUSTMENT)

1. Receive the Monoscope signal.
2. Set 50% BRIGHTNESS and minimum PICTURE.
3. Turn the red VR on the FOCUS block all the way to the left and then gradually turn it to the right until the point where you can see the retrace line.
4. Next gradually turn it to the left to the position where the retrace line disappears.

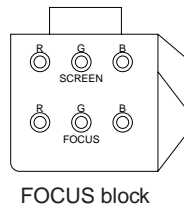


Fig. 3-1

3-2. SCREEN (G2) ADJUSTMENT (FINE ADJUSTMENT)

Fine Mode is recommended to set screen controls to their optimal condition. It is necessary to build the simple jig, illustrated below, using 3-watt resistors. Please note, that if the proper voltage is not obtained with their listed values, resistors, then please increase or decrease one of the values in the resistor network to obtain the correct voltage.

1. Select VIDEO1 mode without signals.
2. Connect G2 JIG.
3. SW on JIG.
4. Connect an oscilloscope to the TP7101(KR), TP7202(KG) and TP7301(KB) of CR board, CG board and CB board.
5. Adjust R, G and B screen voltage to $170 \pm 0.5V$ with screen VR on the Focus block.

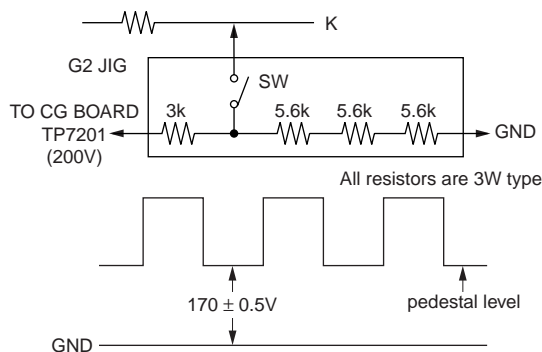


Fig. 3-2

3-3. DEFLECTION YOKE TILT ADJUSTMENT

1. Connect the color bar generator monoscope pattern to Video 1 input.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Loosen the deflection yoke set screw and align the tilt of the Deflection Yoke so that the bars at the center of the monoscope pattern are horizontal.
4. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT.
5. The tilt of the deflection yoke for red is aligned in the mode Cover the both green and blue picture lenses with the lens caps and the tilt of the deflection yoke for blue is aligned with in

the mode Cover the both green and red picture lenses with the lens caps is aligned the same as was done for green.

Note: Instead of items 2 and 5, you can cut off the unnecessary color beams by controlling the service mode CXA2150P-2 0 RGBS.

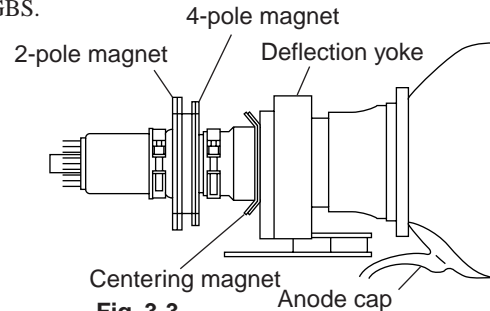


Fig. 3-3

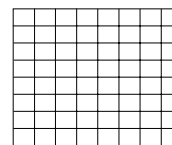
3-4. FOCUS LENS ADJUSTMENT

In this adjustment, use the remote commander in the service mode.

For details of the usage of the service mode and the remote commander, please refer the item 3-9. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER.

1. Loosen the lens screw.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Turn the green lens to adjust to the optimum focus point with the crosshatch signal.
4. Tighten the lens screw.
5. Cover the both green and blue picture lenses with the lens caps to show only the red color.
6. Adjust red CRT lens just the same as green.
7. Cover the both green and red picture lenses with the lens caps to show only the blue color.
8. Adjust blue CRT lens just the same as green.
9. After adjusting the items 3-5. Focus VR Adjustment, 3-6. 2-Pole Magnet Adjustment and 3-7. 4-Pole Magnet Adjustment, adjust again to the optimum focus point.

*: Every time you press 6, the test signal changes to "crosshatch+video signal" - "crosshatch+borderline(black)" - "crosshatch(black)" - "dots(black)" - off.



Test signal

Fig. 3-4

Note: Instead of items 2, 5 and 7, you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

3-5. FOCUS VR ADJUSTMENT

1. Set generator to crosshatch.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Turn the green focus VR on the focus block to adjust to the optimum focus point with the crosshatch signal.
4. Cover the both green and blue picture lenses with the lens caps to show only the red color.
5. Turn the red focus VR on the focus block to adjust to the optimum focus point with the crosshatch signal.
6. Cover the both green and red picture lenses with the lens caps to show only the blue color.
7. Turn the blue focus VR on the focus block to adjust to the optimum focus point with the crosshatch signal.
8. After adjusting the items 3-4. Focus Lens Adjustment, 3-6. 2-Pole Magnet Adjustment and 3-7. 4-Pole Magnet Adjustment, adjust again to the optimum focus point.

Note: Instead of items 2, 4 and 6, you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

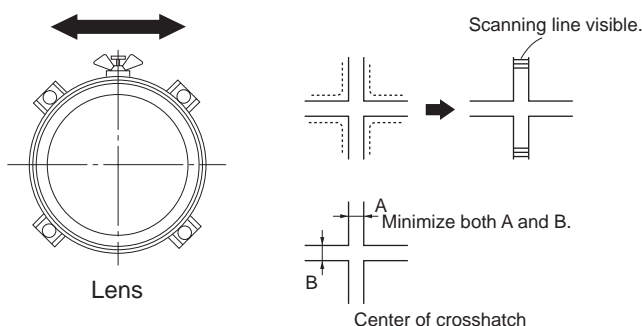


Fig. 3-5

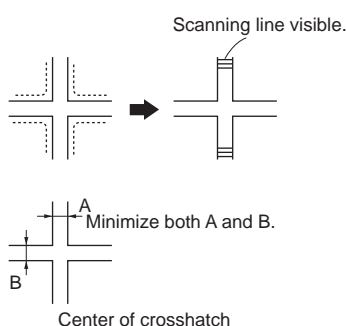


Fig. 3-6

3-6. 2-POLE MAGNET ADJUSTMENT

1. Set the picture mode to "Pro" and picture to MAX.
2. Receive the Dot signal.
3. Cover the both red and blue picture lenses with the lens caps to show only the green color.
4. Turn the green focus VR on the focus block to the left and set to overfocus to enlarge the spot.
5. Adjust 2-pole magnet so that the bright spot should be centered.
6. Align the green focus VR and set for just (precise) focus.
7. Perform the same alignment for red and blue.

Note: Instead of item 2 you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

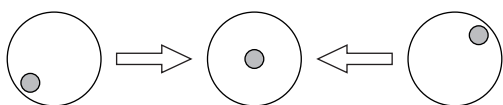


Fig. 3-7

3-7. CENTERING MAGNET ADJUSTMENT

1. Set the picture mode to "Pro".
2. Receive the monoscope signal.
3. Cover the both red and blue picture lenses with the lens caps to show only the green color.
4. Adjust the green centering magnet to put the center of the monoscope signal to the center of the screen.
5. Adjust the red centering magnet in the same way.
6. Adjust the blue centering magnet in the same way.

Note: Instead of item 2 you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

3-8. 4-POLE MAGNET ADJUSTMENT

1. Set the picture mode to "Pro" and picture to MAX.
2. Receive the Dot signal.
3. Cover the both red and blue picture lenses with the lens caps to show only the green color.
4. Turn the green focus VR on the focus block to the right and set the spot will become smaller.
5. Adjust the 4-Pole Magnet so that the spot becomes round for green and red.
6. Adjust blue spot to an oval shape X:Y=1:1.4 ~ 1.5.

Note: Instead of item 2 you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

Use the center dot

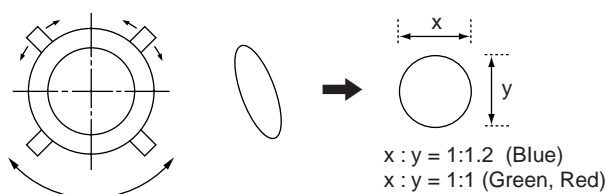


Fig. 3-8

3-9. DEFOCUS ADJUSTMENT (BLUE)

Note: Please adjust the blue dot to be slightly larger than red and green dots. This adjustment provides a more pleasing picture to the customer.

1. Select the picture mode to "Pro".
2. Receive the Dot signal.
3. Cover the both red and green picture lenses with the lens caps to show only the blue color.
4. Turn the blue focus VR on the focus block to right to make the round dot elipical.
5. Check flare with high luminance signal, make sure flare is minimal while dot shape is elipical.
6. Set generator to all white signal and check uniformity.

Note: Instead of item 3 you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

3-10.ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

By using Remote Commander (RM-Y909),all circuit adjustments can be made.

NOTE : Test Equipment Required.

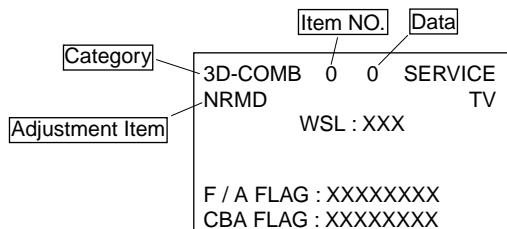
1. Pattern Generator (with component outputs)
2. Frequency counter
3. Digital multimeter
4. Audio oscillator

1. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

SERVICE MODE PROCEDURE

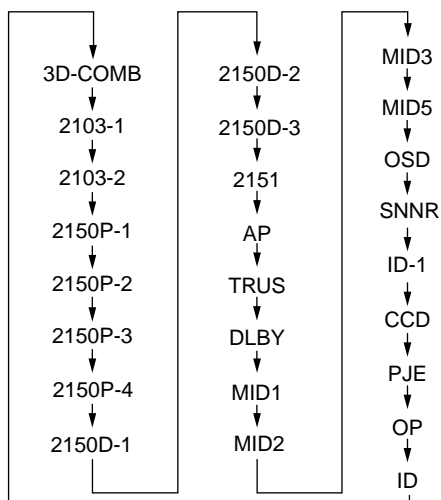
1. Standby mode. (Power off)
2. **DISPLAY** → **5** → **VOL (+)** → **TV POWER** on the Remote Commander.
(Press each button within a second.)

SERVICE MODE ADJUSTMENT



3. The SCREEN displays the item being adjusted.
4. Press **1** or **4** on the Remote Commander to select the adjustment item.
5. Press **3** or **6** on the Remote Commander to change the data.
6. Press **2** or **5** on the Remote Commander to select the category.

Every time you press 2(Category up), Service mode changes in the order as shown below.

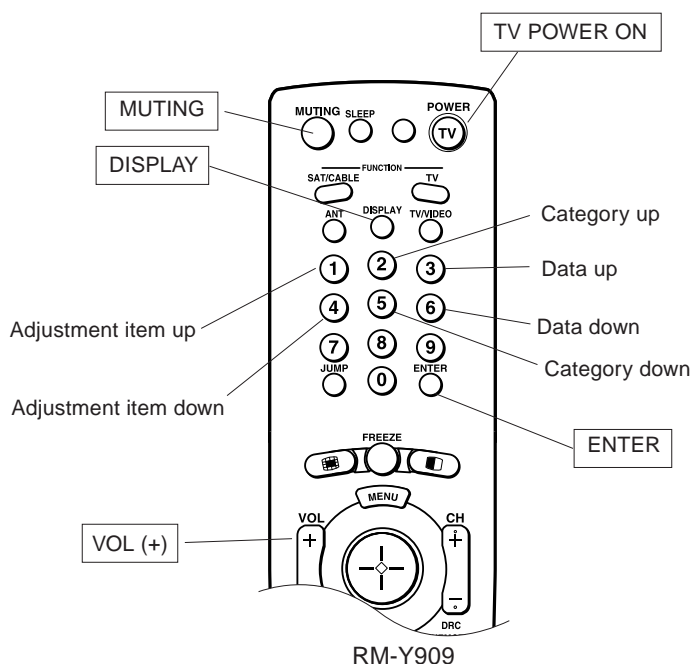


7. If you want to recover the latest values press **0** then **ENTER** to read the memory.
 8. Press **MUTING** then **ENTER** to write into memory.
 9. Turn power off.
- Note: Press **8** then **ENTER** on the Remote Commander to initialize or turn set off and on to exit.

2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, turn power off with the remote commander.
2. Turn power on and set to Service Mode.
3. Call the adjusted items again and confirm they were adjusted.

3. ADJUSTING BUTTONS AND INDICATOR



Note : When the PJE mode is activated, which displays an internally generated signal, several buttons on the remote commander will have different functions than listed above. Therefore, when in the PJE mode, refer to page 26 for button functions.

4. SERVICE MODE LIST

Note: • shaded items are fixed. There is no need to change data. Others are different a little in the sets individually. Basically, there is no need to change data, too.

3D-COMB upD64082

Reg.No & Name	FUNCTION	UHF/VHF & Video		SVideo	
		Standard	Non-standard	Standard	Non-standard
0 NRMD	Operation mode setting	0	1	3	3
1 YAFS	Y-output correction	3	*		
2 CLKS	System clock setting	1	*		
3 NSDS	Selection for standard/non-standard signal processing	0	0	0	0
4 MSS	Selection for inter-frame/inter-line processing	0	*		
5 KLS	Killer processing selection	1	*		
6 CDL	C-signal phase with respect to the Y-signal	3	3		
7 DYCO	DY detection coring level (Y motion detection coring)	2	2	NRMD-2	NRMD-3
8 DYGA	DY detection gain (Y motion detection gain)	10	10	10	10
9 DCCO	DC detection coring level (C motion detection coring)	5	5	5	5
10 DCGA	DC detection gain (C motion detection gain)	5	5	5	5
11 YNRL	Frame recursive YNR nonlinear filter limit level	1	*		
12 CNRL	Frame recursive CNR nonlinear filter limit level	1	*		
13 VTRH	Hysteresis for Hsync non-standard signal detection	1	1	1	1
14 VTRR	Sensitivity for Hsync non-standard signal detection	1	1	1	1
15 LDSR	Sensitivity for frame non-standard signal detection	2	2	2	2
			VM=Low	VM=Mid	VM=High
16 VAFG	V-aperture compensation gain	0	0	0	0
17 VAPI	V-aperture compensation convergence point	0	0	0	0
18 YPET	Y peaking filter (BPF) center frequency	3	0	0	0
19 YPPG	Y peaking filter (BPF) gain	8	0	1	2
20 YHCO	Y output high frequency component coring	0	1	1	1
21 YHCG	Y output high frequency component coring gain	1	1	1	1
22 HSSL	Hsync slice level	12	*		
23 VSSL	Vsync slice level	8	*		
24 ADCL	ADC clock delay	3	*		
25 D2GA	Moving detection gain	4	4	4	4
26 KILR	Killer detection reference	3	*		

Note: YHCO & YHCG are defined directly by SNNR data.

SNNR-3	0
SNNR-2	0
SNNR-1	0
SNNR-0	0

3D-COMB upD64082

Reg.No & Name	FUNCTION	UHF/VHF		SVideo		CVideo		CVideo4	
		Standard	Non-standard	Standard	Non-standard	Standard	Non-standard	Standard	Non-standard
27 OP	Option: Selection of comb filter/recursive n.reduction bytes.	1	*						
28 NRI	Noise reduction on/off	0	0	1	0	1	0	1	0
29 NR2	SNNR control on/off	0	*						
30 WSI	Noise level detection level data	0-255	Read Data						
31 HPLL	H-PLL filter	1	*						
32 BPLL	Burst PLL filter	1	*						
33 FSCF	Burst extraction gain	0	*						
34 PLLF	PLL loop gain	1	*						
35 CC3N	Selection if a line-comb filter C separation filter characteristic	0	0	0	0				
36 HDP	Fine adjustment of the system H-phase	5	*						
37 BGPS	Internal	4	*						
38 BCPW		10	*						
39 TEST	Test bit (0:Normal mode 1:Test mode) * forbidden setting	0	*						
40 WSC	Amount of noise detection coring	1	*						
41 LIND	DRC-M line-doubling setting for non-standard signals UHF/VHF&Video1-4	0	0	2					
42 PFGO	(YPFG offset at GR on) * Not used	3	*						
#16 VAFG		SNNR-0	0	SNNR-1	0	SNNR-2	0	SNNR-3	0

NTSC-YCT (Chroma Decoder) CXA2103-1 (Main)

Reg.No & Name		FUNCTION									
		UV & Video		YCKG-480i		P&P Left		P&P Right		(S)-DRC	
0	YLEV	Y-Out gain		34	40	27	46				
1	CLEV	Ch&C-Out gain		34	40	27	46				
2	SCON	Sub contrast		ADI (7)	ADI (7)	ADI (7)	ADI (7)				
3	SCOL	Sub color		ADI (7)	ADI (7)	ADI (7)	ADI (7)				
4	SHUE	Sub hue		ADI (7)	ADI (7)	ADI (7)	ADI (7)				
5	YDLY	Y/C delay time		0	0	0	0				
6	SHAP	Sharpness		UHF/VHF	Video	UHF/VHF	Video				
7	SHFO	Sharpness f0 selector		5	4	3	3				
8	PREO	Sharpness pre-over-shoot ratio		3	0	0	0				
9	BPFO	Chroma band filter f0 setting		3	0	0	0				
10	BPFO	Chroma band filter Q setting		0	3	3	3				
11	BPSW	Chroma band filter on/off		1	0	0	0				
12	TRAP	Y block chroma trap filter on/off		0	0	0	0				
13	LPF	Y Ch C-Output LPF on/off		1	1	1	1				
14	AFCG	AFC Loop gain (PLL between Hyinc & HWCO)		UHF/VHF	Video	UHF/VHF	Video				
15	CDMD	V countdown system mode selector		1	0	0	0				
16	SSMD	H&Vsync slide level setting		3	3	3	3				
17	HMSK	Masking of macrovision signal on/off		1	1	1	1				
18	HALI	H automatic adjustment on/off		0	0	0	0				
19	PPHA	H TIM phase adjustment video		7	7	7	7				
		UV & Video		YCKG-480i		P&P Left		P&P Right		(S)-DRC	
20	CBOF			34	34	32	32				
21	CROF			32	32						
		P&P & Favorite		P&P & Favorite		P&P & Favorite		P&P & Favorite		P&P & Favorite	
22	ATPD	Auto-pedestal Inflection Point P&P & Favorite UBLK=0	0	UBLK-0	UBLK-1	UBLK-2	UBLK-3	UBLK-4	UBLK-5	UBLK-6	UBLK-7
23	DCTR	DC Transmission Ratio P&P & Favorite UBLK=0	0	1	1	2	1	1	2	2	2

NTSC-YCT (Chroma Decoder) CXA2103-2 (Sub)

Reg.No & Name		FUNCTION									
		UV & Video		P&P Right		P&P Left		(S)-DRC		P&P & Favorite	
0	YLEV	Y-Out gain		34	38	27	31				
1	CLEV	Ch&C-Out gain		27	31	27	31				
2	SCON	Sub contrast		ADI (7)	ADI (7)	ADI (7)	ADI (7)				
3	SCOL	Sub color		ADI (7)	ADI (7)	ADI (7)	ADI (7)				
4	SHUE	Sub hue		ADI (7)	ADI (7)	ADI (7)	ADI (7)				
5	YDLY	Y/C delay time		0	0	0	0				
6	SHAP	Sharpness		UHF/VHF	Video	UHF/VHF	Video				
7	SHFO	Sharpness f0 selector		4	4	4	4				
8	PREO	Sharpness pre-over-shoot ratio		3	3	3	3				
9	BPFO	Chroma band filter f0 setting		0	0	0	0				
10	BPFO	Chroma band filter Q setting		0	0	0	0				
11	BPSW	Chroma band filter on/off		0	0	0	0				
12	TRAP	Y block chroma trap filter on/off		0	0	0	0				
13	LPF	Y Ch C-Output LPF on/off		0	0	0	0				
14	AFCG	AFC Loop gain (PLL between Hyinc & HWCO)		UHF/VHF	Video	UHF/VHF	Video				
15	CDMD	V countdown system mode selector		1	0	0	0				
16	SSMD	H&Vsync slide level setting		3	3	3	3				
17	HMSK	Masking of macrovision signal on/off		0	0	0	0				
18	HALI	H automatic adjustment on/off		0	0	0	0				
19	PPHA	H TIM phase adjustment video		7	7	7	7				
		UV & Video		YCKG-480i		P&P Right		P&P Left		(S)-DRC	
20	CBOF			32	32	31	31				
21	CROF			31	31						
		P&P & Favorite		P&P & Favorite		P&P & Favorite		P&P & Favorite		P&P & Favorite	
22	ATPD	Auto-pedestal Inflection Point P&P & Favorite UBLK=0	0	UBLK-0	UBLK-1	UBLK-2	UBLK-3	UBLK-4	UBLK-5	UBLK-6	UBLK-7
23	DCTR	DC Transmission Ratio P&P & Favorite UBLK=0	0	1	1	2	1	1	2	2	2

Note: Sub signal goes through DRC, when main signal is 480p, 1080i, or 720p

Note: Reg.No 14 to 19 are the same data as CXA2103-1. (the same NVM address)

Note: Reg.No 22 and 23 are the same data as CXA2103-1. (the same NVM address)

CRT Driver CXA2150P-1 (Picture Controls:P1)

Reg.No & Name	FUNCTION	UHF/VHF	CV	SV	YCbCr480i	YCbCr480P	YCbCr1080i	P&P
0	SBOOT	Offset for SBOOT	0	0	7	7	7	7
1	YOF	Y OFFSET: DC-offset for Y signal	0	0	0	0	0	0
2	CB OF	CB OFFSET: DC-offset for Cb signal	35	35	37	40	31	35
3	CR OF	CR OFFSET: DC-offset for Cr signal	36	36	39	41	31	36
4	SUB	SUB BRT: Sub Bright	*	*	*	*	*	*
5	RDRV	R DRIVE: R output drive	ADJ (24)					
6	GDRV	G DRIVE: G output drive	31					
7	BDRV	B DRIVE: B output drive	ADJ (31)					
8	RCUT	R CUTOFF: R output cutoff	ADJ (31)					
9	GCUT	G CUTOFF: G output cutoff	31					
10	BCUT	B CUTOFF: B output cutoff	ADJ (31)					
11	WB SW	WB SW	Vivid (Cool)	Movie (Warm)	Pro			
12	SBOOT	Offset for SBOOT	63	63 (no memory)	63	63 (no memory)	63 (no memory)	63 (no memory)
13	RDOF	Offset for RDRV	63	63 (no memory)	63	63 (no memory)	63 (no memory)	63 (no memory)
14	GDOF	Offset for GDRV	66	63 (no memory)	63	63 (no memory)	63 (no memory)	63 (no memory)
15	BDOF	Offset for BDRV	62	63 (no memory)	63	63 (no memory)	63 (no memory)	63 (no memory)
16	RCOF	Offset for RCUT	63	63 (no memory)	63	63 (no memory)	63 (no memory)	63 (no memory)
17	GCOF	Offset for GCUT	63	63 (no memory)	63	63 (no memory)	63 (no memory)	63 (no memory)
18	BCOF	Offset for BCUT	67	63 (no memory)	62	63 (no memory)	63 (no memory)	63 (no memory)

CRT Driver CXA2150P-2 (Picture Controls:P2)

Reg.No & Name	FUNCTION	UHF/VHF	CV	SV	YCbCr480i	YCbCr480P	YCbCr1080i	P&P
0	ALBK	PIC ON	1					
1	RGBS	R ON/G ON/B ON : R/G/B outputs on/off	7					
2	BLKB	BLK BTM: RGB output bottom limit level (Black level)	3					
3	LIML	PLIMIT LEV: Threshold level for excessively high inputs	0					
4	PABL	P ABL: DC-level in RGB output detection for PEAK ABL	15					
5	SABL	S ABL: S ABL gain	0					
6	AGING	AGING W/AGING B: AGING W/AGING B modes on/off	0					
7	AKRO	AKROFF: Automatic/Manual = Cut off setting	0					
8	SYPH	SYNC PHASE: Hsync delay with respect to Video (100% H-period)	UHF/VHF V1_4					
9	CLPH	CLP PHASE: Internal clamp pulse phase (100% H-period)	3	3	3	3	3	3
10	CLGA	CLP GATE: Switch for the gated internal clamp pulse with Hsync	0	0	0	0	0	0
11	JAXS	JAXIS: color axis switch	*	*	*	*	*	*
12	BLKO	BLKO: Blanking switch	0					

CRT Driver CXA2150P-3 (Picture Controls:P3) (Part1)

Reg.No & Name	FUNCTION	UHF/VHF	CV	SV	YCbCr480i	YCbCr480P	YCbCr1080i	P&P
0	SYSM	SYSTEM: Signal bandwidth setting	1	1	1	1	2	2
1	UVML	VM LEV: VM OUT level	3	3	3	2	3	3
2	VMMO	System Micro pin40	1	1	1	1	1	0
3	VMCR	VM COR: VM OUT color level	0	0	0	1	3	3
4	VMLM	VM LMT: VM OUT limit level	3	3	3	3	3	3
5	VMFO	VM FO: VM FO	2	2	2	2	2	2
6	VMDL	VM DLYVM OUT phase (defined by phase difference from R OUT)	1	2	2	2	0	1
7	SHOF	Offset for USHP-SHOF x 4	0	1	1	2	3	3
8	SHFO	SHP FO: Sharpness circuit FO	1	1	1	1	0	1
9	PROV	PRE OVER: Y signal pre-over-short ratio	0	0	0	3	3	3
10	FLIV	SHP FI: Sharpness for higher fi (4.25.6MHz @NORMAL mode)	3	3	3	3	3	3
11	CDSP	SHP CD: Sharpness in part of high color saturation	3	3	3	3	3	3
12	LTLV	LTI LEV: Luminance transient improvement (LTI)	3	3	3	3	3	3
13	LTMD	LTI MODE: LTI mode setting	1	1	1	1	0	0
14	CTLV	CTI LEV: Chrominance transient improvement (CTI)	0	0	0	0	0	0
15	CTMD	CTI MODE: CTI mode setting	0	0	0	0	0	0
16	UBOF	Offset for UBRT (Picture clarity adjustment)	0	0	0	0	9	7
17	UCOF	Offset for UCOL=UCOF x 2 (Picture clarity adjustment)	3	3	3	3	0	2
18	UHOFF	Offset for UHUE (Picture clarity adjustment)	0	0	0	0	0	0
19	MIDE	MID enhancement setting	3	15	15	7	11	7

CRT Driver CXA2150P-3 (Picture Controls:P3) (Part2)

FUNCTION		Standard						Movie						Pro					
Reg.No & Name		UHF VHF	CV	SV	YCbCr 480i	YCbCr 480P	YCbCr 1080i	P&P	UHF VHF	CV	SV	YCbCr 480i	YCbCr 480P	YCbCr 1080i	P&P				
#0	SYSM	1	1	1	1	2	2	2	1	1	1	1	1	1	2				
#1	UVML	2	2	2	2	2	3	1	1	1	1	1	1	1	0				
#2	VMMO	1	1	1	1	1	1	0	0	0	0	0	0	0	0				
#3	VMCR	1	0	0	1	1	3	3	1	1	1	1	3	3	3				
#4	VMLM	3	3	3	3	3	3	3	3	3	3	3	3	3	3				
#5	VMF0	2	2	2	2	2	2	2	2	2	2	2	2	2	2				
#6	VMDL	0	2	2	2	2	1	1	1	2	2	2	2	2	1				
#7	SHOF	1	0	0	0	2	3	3	1	1	1	1	1	1	0				
#8	SHF0	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
#9	PROV	0	3	0	0	0	0	3	3	3	3	3	3	2	2				
#10	FLTV	0	0	0	0	1	3	3	0	0	0	1	2	3	3				
#11	CDSP	3	3	3	3	3	3	0	0	0	0	0	0	0	0				
#12	LTLV	2	2	2	2	2	2	0	0	0	0	0	0	0	0				
#13	LTMD	1	1	1	1	1	0	1	1	1	1	1	1	1	0				
#14	CTLV	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
#15	CTMD	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
#16	UHOF	7	7	7	7	9	7	7	7	7	7	7	7	7	7				
#17	UCOF	1	1	1	1	1	0	0	0	0	0	0	0	0	0				
#18	UHOF	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
#19	MIDE	2	14	14	6	10	-	-	1	13	13	5	9	-	-				

CRT Driver CXA2150P-3 (Picture Controls:P3) (Part3)

Reg.No & Name	FUNCTION	SNNR=0	SNNR=1	SNNR=2	SNNR=3
#1	UVML	0	0	0	0
#3	VMCR	0	+1	+2	+3
#10	FLTV	0	-1	-2	-3
#11	CDSP	0	0	0	0
#12	LTLV	0	0	0	0
#14	CTLV	0	0	0	0
#19	MIDE	0	0	0	0

CRT Driver CXA2150P-4 (Picture Controls:P4)

Reg.No & Name	FUNCTION	Vivid	Standard	Movie	Pro
0	UPIC	63	44	31	31
1	UBRT	26	31	31	31
2	UCOL	31	31	31	31
3	UHUE	31	31	31	31
4	USHP	32	40	31	31
5	UTMP	2	1	0	1
6	UDCL	2	2	0	0
7	AXIS	UHF/VHF V1-4	YCbCr480i	YCbCr480P	YCbCr1080i
8	UGAM	5	4	4	5
9	AGAM	-	UGAM-1	UGAM-2	UGAM-3
10	GSRO	0	0	0	0
11	GCOC	0	0	0	0
12	GHUO	0	0	0	0
13	UBLK	6	6	6	6
14	ABLK	6	6	6	6
15	DCTR	1	1	1	1
16	DPIC	0	1	2	3
17	DSHO	7	7	7	7
18	ABLM	0	0	0	0
19	ABLT	Full	Vcomp 1 & 2		
20	EPDF	0	15		
21	SPOF	Offset for UPIC=EPDF x (UPIC/63) (for power save) - Void Data			
22	SCON	Offset for UPIC=SPDF x (UPIC/64) - Data Not used			
23	CLOF	Offset for UCOL			
24	HUOF	Offset for UHUE			
25	UDSW	Not used			
26	DATA	Display of vertical compression modes. Not used.			

<< Only available at Vcomp 1 & 2.

Reg.No & Name	FUNCTION	SNR	SNR	SNR	SNR
		=0	=1	=2	=3
#4	USHP	0	1	3	4
		Picture Mode - Standard			
		YCbCr	YCbCr	YCbCr	YCbCr
		480	480	480	1080i
#8	UGAM	2	2	2	1
		Picture Mode - Standard			
		YCbCr	YCbCr	YCbCr	YCbCr
		480	480	480	1080i
#13	UBJLK	3	3	3	3

CRT Driver CXA2150D-1 (Deflection Controls:D1)

Reg.No & Name	FUNCTION						
0 VPOS	V POSITION:	Vertical position (V DRV signal DC bias)					
1 VSIZ	V SIZE:	Vertical size (V DRV signal gain)					
2 VSZO	V SIZE OFFSET						
3 VLIN	V LINEARITY:	Vertical linearity					
4 NSCO	S CORRECTION:	Vertical S-correction					
5 VCEN	NSAW0 DCH/NSAW0 DCL:	Vertical center adjustment					
6 VPIN	NSAW0 AMP:	Vertical PIN adjustment					
7 NSCO	NSAW1 DC:	Roution					
8 HTTZ	NSAW1 AMP:	Horizontal trapezoid					
9 ZOOM	ZOOM SW:	Zoom switch					
10 APSW	ASP SW:	Aspect switch					
11 ASPR	V ASPECT:	Aspect ratio					
12 SCRL	V SCROLL:	Vertical scroll					
13 UVLN	UP VLIN:	Upper vertical linearity					
14 LVLN	LO VLIN:	Lower vertical linearity					

CRT Driver CXA2150D-2 (Deflection Controls:D2)

Reg. No & Name	FUNCTION	108k	Full/Normal	Zoom	Wide/Zoom
0 HCNT	HC PARA: DC: Horizontal center			19	
1 HPOS	H POSTION: Horizontal position			25	
2 HSIZ	H SIZE: Horizontal size				ADI(35)
3 SLIN	MP PARA DC: Horizontal S-correctio			ADI(3)	ADI(3)
4 MPIN	MP PARA AMP: Horizontal middle pin			0	0
5 PIN	PPN AMP: Horizontal pin			10	10
6 PIN0		7			
7 UCP	UP CPIN: Upper corner pin			7	7
8 LCP	LO CPIN: Lower corner pin			31	31
9 UXCG	UP UCG: Upper extra corner pin gain			31	31
10 LXCG	LO UCG: Lower extra corner pin gain			0	0
11 UXCP	UP UCP: Upper extra corner pin position			0	0
12 LXCP	LO UCP: Lower extra corner pin position			2	2
13 XCPP	UC POL: Extra corner pin polarity			2	2
14 PHPA	PIN PHASE: Pin phase		0		0
15 VANG	AFC ANGLE: AFC angle			31	
16 LANG	HC PARA: PHASE: Linearity angle			31	
17 VBOW	AFC: BOW: AFC bow			31	
18 LBOW	HC PARA: AMP: Linearity bow			48	
19 CPY1	COPY function 1: (Sat COPY=1, then mess MUTE=Enter) * Not used			0	

CRT Driver CXA2150D-3 (Deflection Controls:D3)

Reg.No & Name	FUNCTION	1080i	Full	Normal	Zoom	WideZoom
0 HBLK	HBLK SW: Horizontal blanking switch			1		
1 LBLK	LEFT BLK: Left blanking	56			56	
2 RBLK	RIGHT BLK: Right blanking	25			25	
3 VBLK	VBLK SW: Vertical blanking switch					
4 TBLK	TP BLK: Top blanking	4	15	15	15	15
5 BBLK	LO BLK: Bottom blanking	5	15	15	15	15
6 VCOMP	V COMP: Vertical compensation	0	0	0	0	0
7 HCOMP	H COMP: Horizontal compensation	0	0	0	0	0
8 ACMP	AFC COMP: AFC compensation	0	0	0	0	0
9 PCMP	Pin COMP: Pin compensation	0	0	0	0	0
10 AFCM	AFC MODE: AFC compensation	2			3	
11 VFRQ	V FREQ: Vertical frequency			1		
12 VON	V ON: Vertical drive on				1	
13 JUMP	JMP SW: Reference pulse jump switch					
14 VDRV	VDRV SW: Vertical drive switch	1	1	1	1	1
15 VDST	RST SW: Vertical drive start switch	0	0	0	0	0
16 EWDC	EW DC: Pin DC level shift			0		
17 AKBT	AKBTIM: AKB timing	9	9	9	9	9

Component I/F & Sync Separation CXA2151

Reg.No & Name	FUNCTION	480i	480P	1080i	720P
0 MTRX	MAT OUT	15.75kHz	31.50kHz	33.75kHz	45kHz
1 GAIN	GAIN SEL	0	0	1	1
2 CBGN	CBGAIN	9			
3 VTC	V TC	1			
4 HWDH	H WIDTH	1			
5 HSEP	HSEP SEL	0	0	0	0
6 TEST	TEST	0			
7 FRGB	FRGB	0			
8 HMSK	Hsync masking in vertical retrace	1		0	1

Audio Processor (AP) BH3868FS

Reg.No & Name	FUNCTION	0
0 ISVOL	Volume Offset for Volume	0
1 SBAL	Balance Offset for Balance	7
2 SBAS	Bass Offset for Bass	10
3 STRE	Treble Offset for Treble	7
4 BBLP	BBE low pass filter	0
5 BBHP	BBE high pass filter	2
6 SREF	Surround effect	11
7 AGC	Auto gain control	0
8 BBE	BBE on/off	0

TruSurround (TRUS) NJM2180

Reg.No & Name	FUNCTION	1	2
1 TSMD	TruSurround effect selection	1	2
0 ATT	ATT	0	0

DLBY NJM1106

Reg.No & Name	FUNCTION	0
0 DBMD		0
1 SCH		0
2 ADSW		0
3 CICH		0
4 DEL Y		0
5 SSEL		0

MID-1 (Display Data : Output)

Reg.No & Name	FUNCTION	(for 4:3)
0	DHPH H active display area phase	110
1	DVPH V active display area phase	20
2	DHAR H active display area size	240
3	DVAR V active display area size	135
4	DHPW display H pulse width	55
5	DVPW display V pulse width	5
22	DPSW display PLL switch	1 (fixed)
23	MDL model select (16/9/4:3)	0
	(B) Misc. Common Data	Data
6	DYCD display output Y-C delay correction	2
7	DYSD display output YS signal delay select	1
	(C) Favorite / Other	Normal
8	MDHP main display picture H position	154
9	MDHS main display picture H size	162
10	(D) Single (Input Signal Format) / Favorite	Single 480i/480P
9	MDVP main display picture V position	30
11	MDVS main display picture V size	120
	(E) Index / Others	Index
12	MLHP multi picture mode H position	36
13	MLVP multi picture mode V position	31
	(F) Favorite	Favorite
14	SDHS sub display picture H position	166
15	SDVS sub display picture V position	20
	(G) Favorite	Favorite
16	SDHS sub display picture H size	44
17	SDVS sub display picture V size	29
	(H) PnP Position (Not Used)	
18	PDHP (PnP Large mode H position)	-
19	PDVS (PnP Large mode V position)	-
	(I) PnP Size (Not Used)	
20	PDHS (PnP Large mode H size)	-
21	PDVS (PnP Large mode V size)	-
	(J) Single / Others	Single
24	BGCOL background Y level	3
		Others
		3

MID-2 (Active Data for DRC : INPUT)

Reg.No & Name	FUNCTION	Single(Normal)	Single(Other)
	(A) MID Mode, Wide mode, Input Signal Format	RF, Video, YC	RF, Video, YC
0	DRHP DRC H active area position	111	110
1	DRHS DRC H active area size	178	178
2	DRVP DRC V active area position	37	37
3	DRVS DRC V active area size	120	120
		Twin, Favorite	Memo
0	DRHP DRC H active area position	132	131
1	DRHS DRC H active area size	166	166
2	DRVP DRC V active area position	54	54
3	DRVS DRC V active area size	112	112
		Index	Index-Small
		RF, Video, YC	RF, Video, YC
0	DRHP DRC H active area position	139	138
1	DRHS DRC H active area size	164	164
2	DRVP DRC V active area position	50	50
3	DRVS DRC V active area size	114	112

MID-3 (Active Data for A/D (VDO) : INPUT)

Reg.No. & Name	FUNCTION				
	(A) MID mode, Wide mode, Input Signal Format				
	Single				
	480P	720P	YPhPr No Signal	YPhPr No Signal	Twin-Right
0 VDHP	109	95	205	205	
1 VDH8	166	108	226	226	
2 VDVE	37	24	37	37	
3 VDVS	120	180	56	56	
	Twin, Favorite				
0 VDHP	128	111	179	179	187
1 VDH8	155	99	199	199	215
2 VDVE	53	37	50	24	26
3 VDVS	112	126	168	56	56
	Memo				
0 VDHP	136	102	115	179	
1 VDH8	152	147	98	199	
2 VDVE	57	44	58	24	
3 VDVS	110	123	164	56	
	Index				
0 VDHP	132	99	112	166	204
1 VDH8	154	149	99	187	211
2 VDVE	51	34	48	24	26
3 VDVS	113	128	169	56	56
	Index-Short				
	RF, Video, S-Video, YPhPr 480i				
4 VDVO	0	0	0	0	0
5 VCPO	95	70	40	40	40
6 VCWD	3	3	3	3	3
7 VYCD	0	0	0	0	0
8 VSTP	-	119	160	146	146
9 VSTT	-	4	0	0	0
10 VHSC	130	-	-	-	-

MID-5 (Picture Data) (A) Enhance Table Data Setting

	0	1	2	3	4	5	6	7
0 J-OP	Table select	1	1	2	3	4	5	6
1 MHLY	Main H LPP Y Coefficient select	1	1	1	1	1	1	1
2 MHLG	Main H LPP C Coefficient select	3	3	3	3	3	3	3
3 MVLY	Main V LPP Y Coefficient select	0	0	0	0	0	0	0
4 MVLC	Main V LPP C Coefficient select	0	0	0	0	0	0	0
5 MHYR	Main H Enhance Y Cores level	1	2	1	0	0	0	1
6 MHYL	Main H Enhance Y Clip level	1	1	1	1	1	1	1
7 MHYE	Main H Enhance Y Enhancement level	7	3	3	7	7	3	5
8 MHYO	Main H Enhance Y Coefficient select	1	1	1	1	1	1	1
9 MHCR	Main H Enhance C Cores level	0	0	0	0	0	0	0
10 MHCL	Main H Enhance C Clip level	1	1	1	1	1	1	1
11 MHCE	Main H Enhance C Enhancement level	0	0	0	0	0	0	0
12 MHCO	Main H Enhance C Coefficient select	1	1	1	1	1	1	1
13 MVYR	Main V Enhance Y Cores level	0	2	2	0	0	2	2
14 MVYL	Main V Enhance Y Clip level	1	1	0	1	1	1	1
15 MVYE	Main V Enhance Y Enhancement level	0	0	2	5	0	2	5
16 MVCR	Main V Enhance C Cores level	0	0	0	0	0	0	0
17 MVCL	Main V Enhance C Clip level	1	1	1	1	1	1	1
18 MVCE	Main V Enhance C Enhancement level	0	0	0	0	0	0	0
0 J-OP	Table select	8	9	10	11	12	13	14
1 MHLY	Main H LPP Y Coefficient select	0	0	0	0	1	1	1
2 MHLG	Main H LPP C Coefficient select	3	3	3	3	3	3	3
3 MVLY	Main V LPP Y Coefficient select	0	0	0	0	0	0	0
4 MVLC	Main V LPP C Coefficient select	0	0	0	0	0	0	0
5 MHYR	Main H Enhance Y Cores level	0	0	0	1	0	0	1
6 MHYL	Main H Enhance Y Clip level	1	1	1	1	1	1	1
7 MHYE	Main H Enhance Y Enhancement level	7	3	5	7	7	3	3
8 MHYO	Main H Enhance Y Coefficient select	1	1	1	1	1	1	1
9 MHCR	Main H Enhance C Cores level	0	0	0	0	0	0	0
10 MHCL	Main H Enhance C Clip level	1	1	1	1	1	1	1
11 MHCE	Main H Enhance C Enhancement level	0	0	0	0	0	0	0
12 MHCO	Main H Enhance C Coefficient select	1	1	1	1	1	1	1
13 MVYR	Main V Enhance Y Cores level	0	0	2	2	0	0	2
14 MVYL	Main V Enhance Y Clip level	1	1	1	1	1	1	1
15 MVYE	Main V Enhance Y Enhancement level	0	0	2	5	0	2	5
16 MVCR	Main V Enhance C Cores level	0	0	0	0	0	0	0
17 MVCL	Main V Enhance C Clip level	1	1	1	1	1	1	1
18 MVCE	Main V Enhance C Enhancement level	0	0	0	0	0	0	0

* No.19 - No.36 data is all "0" not to use.

On-Screen Display (OSD)

Reg.No. & Name	FUNCTION	
0 HPOS	OSD horizontal position	14
1 HPROF	Horizontal position for Favorite mode	37
2 VPOS	OSD vertical position	4
3 VPOT	Vertical position for P&P (Twin) mode	40

SNNR

Reg.No. & Name	FUNCTION				
0 SNNR	SNNR data setting	0	1	2	3
1 SNPF	Selection of SNNR data setting	0			
2 WSLT	Noise level detection data thresholds for SNNR data (read data)	0-30	31-62	63-126	127-255
	SNNR Settings based on WSL Data				
	SNNR-0/1/2/3	0	0	1	2
3 CPTG	Related to 3D-COMB up/D64802 / #19 YPRG settings	0	1	2	3
4 CPTT	Related to 3D-COMB up/D64802 / #18 YPPT settings	0	0	0	0
5 CCOR	Related to 3D-COMB up/D64802 / #20 VHCO settings	0	0	1	1
6 CHCG	Related to 3D-COMB up/D64802 / #21 VHCO settings	1	1	1	1
7 CARG	Related to 3D-COMB up/D64802 / #16 VARG settings	0	0	0	0
8 SSHP	Related to CXA2103 / #6 SHAP settings	0	1	2	3
9 MIDD	Related to CXA2150P-3 / #19 MIDE settings	0	0	0	0
10 SSHP	Related to CXA2150P-4 / #4 USHP settings	0	1	3	4
11 SYFI	Related to CXA2150P-3 / #10 FILV settings	0	1	2	3
12 SCDS	Related to CXA2150P-3 / #11 CDSP settings	0	0	0	0
13 SLTI	Related to CXA2150P-3 / #12 LTIV settings	0	0	0	0
14 SCTL	Related to CXA2150P-3 / #14 CTVL settings	0	0	0	0
15 SVML	Related to CXA2150P-3 / #1 UVML settings	0	0	0	0
16 SVMC	Related to CXA2150P-3 / #3 VMCR settings	0	0	1	2

SNNR data is used for the () offset setting.

SNNR data is used for the direct setting.

SNNR data is used for the () offset setting.

SNNR data is used for the () offset setting.

ID-1 Detection

Reg.No. & Name	FUNCTION	
0 XGLK	XGLK: Setting for memorizing or not the ID-1 detection status	0
1 LINT	LINT: Setting for the multi-single-line ID-1 detection	0

Closed Caption Display & Parental Control (CCD&VCHIP)

Reg.No. & Name	FUNCTION	
0 HPRM	Horizontal position of CCD (Main)	49
1 HPRS	Horizontal position of CCD (Sub)	49
2 RND	OSD rounding control	1
3 CCDI	Interrupt control	3
4 CRIP	CRI count & parity count	4
5 CRIT	Charge/Discharge timing control for slave voltage level	0
6 CHMK	Horizontal mask width	42
7 FPOL	Field polarity selection	1
8 LANG		0
9 DATA	Switch for CCD service/test data	0
10 VCHIP	Selection of Vchip controls	1

OPTIONS

Reg.No. & Name	FUNCTION	
0 DLY1	Power-On to RLY timing = DL Y1 x 50ms	2
1 DY2	Power-On Mute timing = DL Y2 x 50ms	12
2 DLY3	Relay-On to start Bus communication	12
3 AGC		255
4 PCMX		63
5 BRMX		63
6 RAMW		0
7 SOFF		0

ID

Reg.No. & Name	FUNCTION	
0 ID0	Selection of OSD languages & color system	89
1 ID1	Selection of composite & s-video inputs	127
2 ID2	Selection of audio-related controls	239
3 ID3	Selection of basic system settings	98
4 ID4	Selection of basic system settings	203
5 ID5	Selection of advanced system settings	177
6 ID6	Selection of sub picture related settings	54
7 ID7	Selection of some reserved settings	24

PJ Engine

ITEM No.	ITEM Name	Contents	min	max	init (16:9)			HD
					Normal	Zoom	W Zoom	
0	FDIS	Switch of display for fine adjustment data	0	1			-	
1	COPY	Service copy adjustment	0	1			-	
2	ALCP	Auto Regi. Pattern left horizontal position	0	1			-	
3	OSDH	Auto Regi. Pattern left middle horizontal position	0	255			22	
4	OSDV	Auto Regi. Pattern left middle horizontal position	1	255			100	60
5	FVSL	Start position of fine adjustment	0	15			14	15
6	FVSP	Start line of fine adjustment	0	255			3	25
7	VIDL	Value of V1 delay	0	255			1	139
8	V1CU	Value of V1 count up	0	4095			454	598
9	V1OH	Value of V1 offset upper data	0	255			5	5
10	V1OL	Value of V1 offset lower data	0	255			0	0
11	OEVP	Odd/Even select position	0	4095			1056	
12	COHP	Horizontal phase for rough adjustment	0	4095			0	
13	3ACS	Start center clamp position of H3 and H4 pulse	0	31			14	
14	3ACW	Width center clamp position of H3 and H4 pulse	0	31			0	
15	FHPH	Horizontal phase for fine adjustment	0	4095			1104	
16	TPHP	Horizontal phase for test pattern	0	4095			69	
17	TPVP	Vertical phase for test pattern	0	255			55	111
18	DPHG	Horizontal phase for dynamic focus	0	4095			250	
19	DPHG	Value of horizontal parabola wave for dynamic focus	-128	127			-70	-70
20	DPVG	Value of vertical parabola wave for dynamic focus	-128	127			-50	-50
21	DPFC	Value of center for dynamic focus	-128	127			127	127
22	DPV1	Value of V1 saw wave for dynamic focus	-128	127			-50	-50
23	SDHP	Compensation of horizontal phase for shading	0	4095			422	
24	SDH1	Value of horizontal saw wave for dynamic focus	-128	127			127	127
25	RVC5	Start position of Red vertical clamp	0	31			0	
26	RVCW	Width of Red vertical clamp	0	31			0	
27	GVC5	Start position of Green vertical clamp	0	31			0	
28	GVCW	Width of Green vertical clamp	0	31			0	
29	BVC5	Start position of Blue vertical clamp	0	31			0	
30	BVCW	Width of Blue vertical clamp	0	31			0	
31	RHCS	Start position of Red horizontal clamp	0	31			0	
32	RHCW	Width of Red horizontal clamp	0	31			0	

PJ Engine

ITEM No.	ITEM Name	Contents	min	max	init (16:9)			HD
					Normal	Zoom	W Zoom	
67	VLOM	Auto Regi. Pattern Lower middle vertical position	0	2047			0	
68	VLOW	Auto Regi. Pattern Lower vertical position	0	2047			51:980	57:980
69	HLB	Auto Regi. Pattern left horizontal position	0	4095			51:72	57:72
70	HLBM	Auto Regi. Pattern left middle horizontal position	0	4095			0	
71	HMLD	Auto Regi. Pattern middle horizontal position	0	4095			51:655	57:655
72	HRLM	Auto Regi. Pattern right middle horizontal position	0	4095			0	
73	HRIV	Auto Regi. Pattern right horizontal position	0	4095			51:1232	57:1232
74	SFTF	Switch of shift fast	0	1			0	
75	ACTL	Account timer counter lower byte	0	-			0	
76	ACTH	Account timer counter upper byte	0	-			0	
77	SLSW	Auto Regi. adjustment item select	0	3			51:0	57:0

16:9 has Normal, Zoom, W Zoom, HD separately

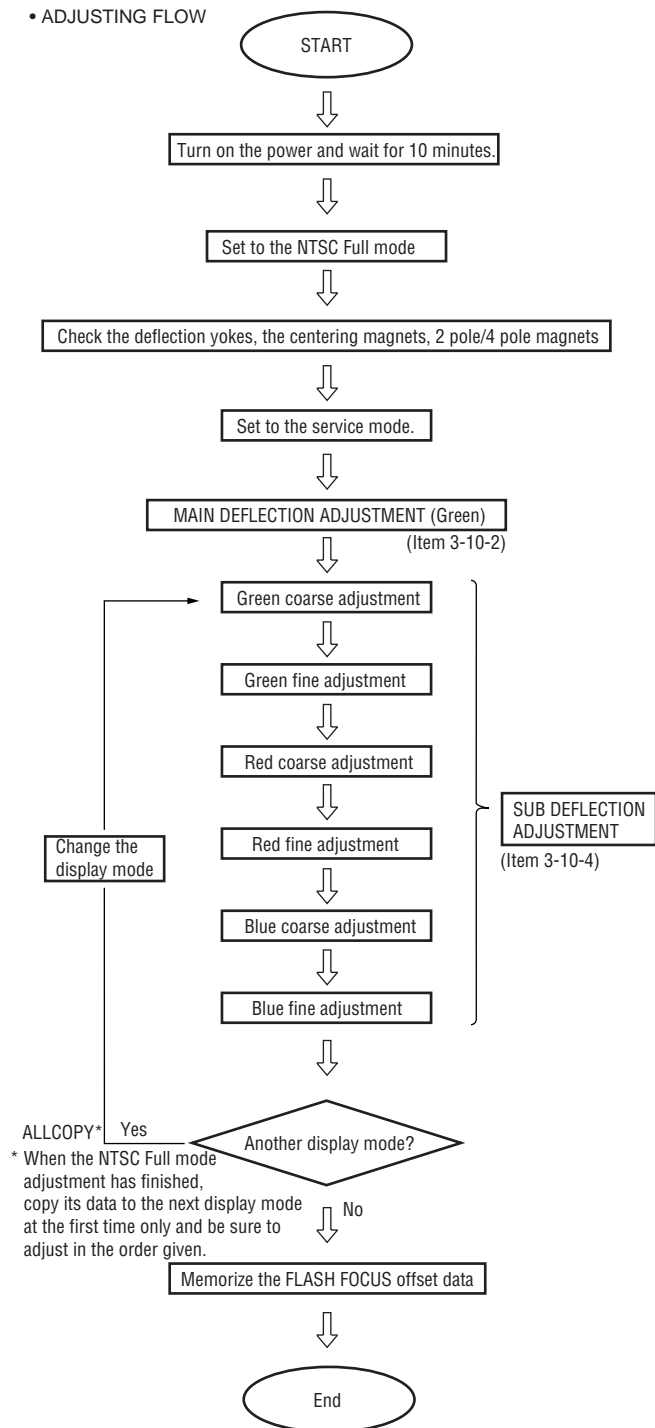
			min	max	16:9			
					Green	Blue	Red	
78	CENT		-512	511	ADI 0, -150	ADI 0, 0	ADI 0, 0	
79	SKEW		-512	511	ADI 0, 0	ADI 0, 0	ADI 0, 0	
80	SIZE		-512	511	ADI -50, -75	ADI -50, -75	ADI -50, -75	
81	LIN		-512	511	ADI 0, 0	ADI -425, 0	ADI 425, 0	
82	KEY		-512	511	ADI x, 0	ADI x, -120	ADI x, 120	
83	PIN		-512	511	ADI 0, 400	ADI 0, 350	ADI 0, 350	
84	MLIN		-512	511	ADI 0, x	ADI 150, x	ADI -150, x	
85	MSIZ		-512	511	ADI -200, x	ADI -100, x	ADI -100, x	

PJ Engine

ITEM No.	ITEM Name	Contents	min	max	init (16:9)			HD
					Normal	Zoom	W Zoom	
33	GHCS	Start position of Green horizontal clamp	0	31			0	
34	GHCW	Width of Green horizontal clamp	0	31			0	
35	BHCS	Start position of Blue horizontal clamp	0	31			0	
36	BHCW	Width of Blue horizontal clamp	0	31			0	
37	BDVU	Vertical position for border line 1	0	2047			23	18
38	BDVL	Vertical position for border line 2	0	2047			683	820
39	BDHL	Horizontal position for border line 1	0	2047			148	
40	BDHR	Horizontal position for border line 2	0	2047			1262	
41	HBLD	Horizontal phase for output of H Blank out	0	4095			0	
42	HBLW	Width for output of H Blank out	0	4095			0	
43	PWM2	PWM2 output width setting of Regi IC	0	4095			51:315	57:730
44	COGV	Green vertical center offset data for Auto Regi.	-128	127			-	
45	COBV	Red vertical center offset data for Auto Regi.	-128	127			-	
46	COBV	Blue vertical center offset data for Auto Regi.	-128	127			-	
47	COGH	Green horizontal center offset data for Auto Regi.	-128	127			-	
48	COBH	Red horizontal center offset data for Auto Regi.	-128	127			-	
49	COBH	Blue horizontal center offset data for Auto Regi.	-128	127			-	
50	SOGV	Green vertical skew offset data for Auto Regi.	-128	127			-	
51	SORV	Red vertical skew offset data for Auto Regi.	-128	127			-	
52	SORV	Blue vertical skew offset data for Auto Regi.	-128	127			-	
53	SOCH	Green horizontal skew offset data for Auto Regi.	-128	127			-	
54	SORH	Red horizontal skew offset data for Auto Regi.	-128	127			-	
55	SOBH	Blue horizontal skew offset data for Auto Regi.	-128	127			-	
56	ZOCH	Green horizontal size offset data for Auto Regi.	-128	127			-	
57	ZORH	Red horizontal size offset data for Auto Regi.	-128	127			-	
58	ZORH	Blue horizontal size offset data for Auto Regi.	-128	127			-	
59	LOCH	Green horizontal linearity offset data for Auto Regi.	-128	127			-	
60	LOBH	Red horizontal linearity offset data for Auto Regi.	-128	127			-	
61	LOBH	Blue horizontal linearity offset data for Auto Regi.	-128	127			-	
62	ERR	Auto Regi. Error code	0	-			-	
63	ADTM	A/D data input timing of Auto Regi.	0	127			51:34	57:134
64	VUP	Auto Regi. Pattern Upper vertical position	0	2047			51:48	57:48
65	VUPM	Auto Regi. Pattern Upper middle vertical position	0	2047			0	
66	VMD	Auto Regi. Pattern Middle vertical position	0	2047			51:515	57:515

3-11. REGISTRATION ADJUSTMENT

• ADJUSTING FLOW

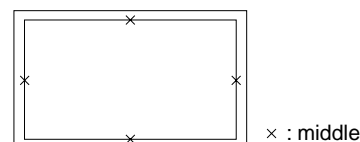


3-11-1. Setup for Adjustment

1. Marking

- At the 4 insides of the screen, locate the middle. Use a tape measure to identify the middle.

2. Data Setting



- Set NTSC Full mode.
- Enter the Service mode, and select "PJE".

Note : When you replaced printed circuit boards or devices or CRTs, and when correction is drastically necessary, press "7" + "ENTER" buttons to initialize the data in the Projector Engine mode.

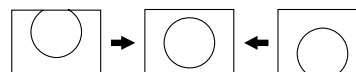
Press "MUTING" + "ENTER" buttons on the commander to write the data.

3-11-2. Main Deflection Adjustment

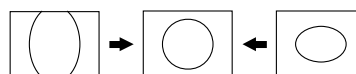
Note : Before this adjustment, input the data of PJE item No. 78-85, (See page 24).

- Place the caps on the red and blue lenses so that only the green color is displayed.
- Enter the monoscope signal and set to NTSC Full mode .
- Enter the Service mode, and select "2150D-1" .
- Adjust "0 VPOS" and "1 VSIZ" so that the picture is displayed in the center of screen.
- Adjust "2 VSZO" for 1080i vertical size adjustment.

0 VPOS



1 V-Size



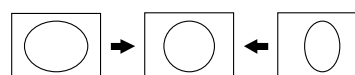
- Select "2150D-2" and adjust "2 H-Size" so that the picture size is within the specification.

SPEC

Overscan Spec. = 9%

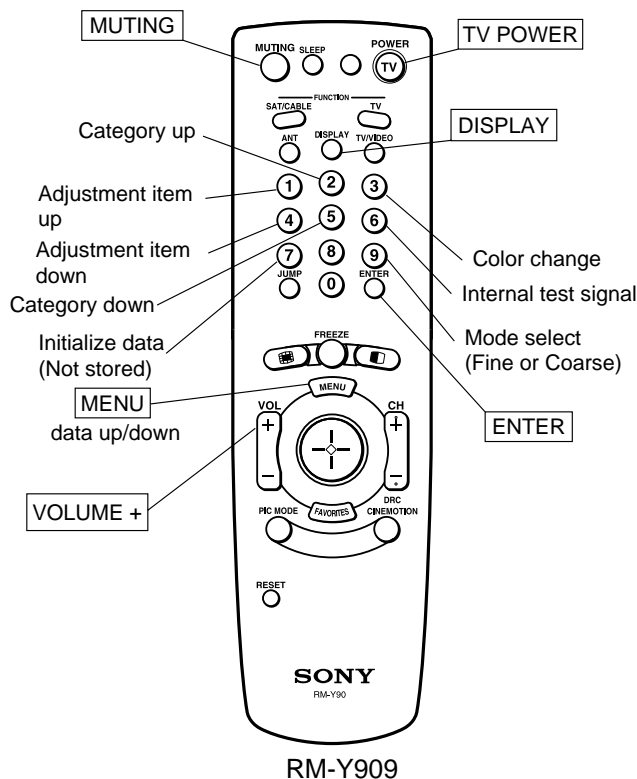
Input Signal	H SIZE	V SIZE
Monoscope	15.6 ± 0.2 sq.	11.5 ± 0.2 sq.

2 H-Size



- Copy the data of NTSC Full mode to the other display mode and adjust in the other mode as the occasion demands.

3-11-3. Operation Method for Projector Engine Mode



1. Functions of Keys on Commander

- ① : Changes adjustment item. (item No. moves up)
: Marker moves clockwise from center to outside. (in fine adjustment mode)
- ④ : Changes adjustment item. (item No. moves down)
: Marker moves counterclockwise from outside to center. (in fine adjustment mode)
- ② : Changes adjustment category. (category No. moves up)
- ⑤ : Changes adjustment category. (category No. moves down)
- Joystick : Changes data value. (up or down)
: Marker moves up, down, or to the left or right. (in fine adjustment mode)
- ③ : Changes adjustment color.
GRN → BLU → RED
- ⑥ : Displays or changes internal test signals.
: crosshatch + external signal → crosshatch + borderline → crosshatch only → dot only → off
- ⑨ : Switches adjustment mode.
Coarse adjustment mode → fine adjustment mode

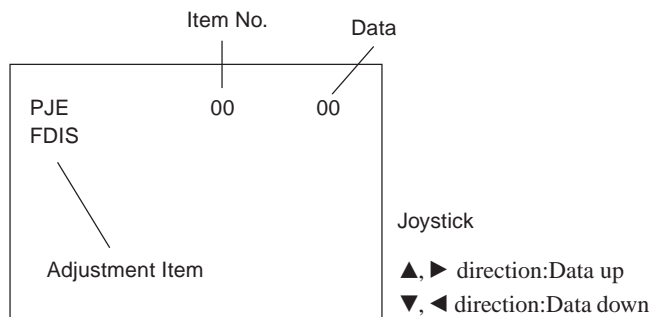
- Press joy stick : Switches marker moving method.
stick (in fine adjustment mode)
joystick (▲, ▼, ◀, ▶) keys → ① and ④ buttons

Commander Function

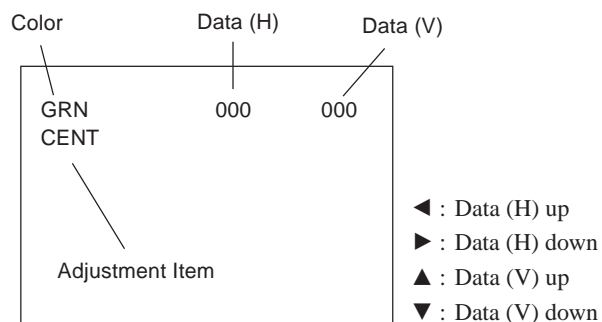
Buttons	Mode	Description
① + ENTER	READ	Writes data to NVM.
MUTING+ENTER	WRITE	Reads data from NVM.
⑦ + ENTER	PJE INITIAL	Service data initialization. Not stored. (Be sure not to use usually)

2. Operation Method for Coarse Adjustment

- 1) Enter the Service mode, and select "PJE".
- 2) Press "①" or "④" button on the commander to select the item, and use the joystick to change the data.



- 3) Select "GRN CENT". When BLU or RED is displayed, press "③" button on the commander to change the adjustment color in the order of GRN → BLU → RED.
- 4) In the GRN, BLU, or RED mode, move ▲, ▼ direction the joystick can change the data in vertical direction, or ◀, ▶ direction in horizontal direction.

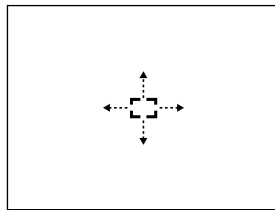


- 5) Before returning to the Service mode, press "MUTING" + "ENTER" buttons on the commander to write the data. (Omission of this operation causes the set data to be returned to the data before adjustment)

3. Operation Method for Fine Adjustment

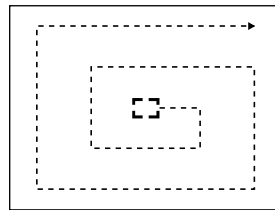
- 1) Select the PJE mode.
- 2) Select FDIS so that the data at each position can be displayed in the fine adjustment mode, and set the data to "01".
- 3) Press "⑨" button on the commander, and the fine adjustment mode will be active where a green marker appears in the center of screen (in the case of GRN mode).
- 4) Press joystick, and the marker color will be switched between green (GRN mode) and white alternately.
- 5) Use "①" or "④" button on the commander, or the joystick to move the marker to the position to be adjusted, where fine adjustment can be made.

- When marker color is white.
(in this case, fine adjustment is disabled)



Operating the joystick can move the marker up, down, or to the left or right freely.

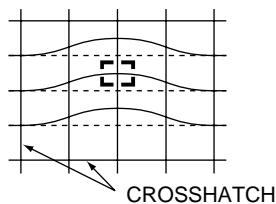
- When marker color is green. (GRN mode)



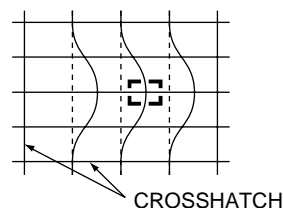
- ① : moves the marker clockwise from center to outside.
- ④ : moves the marker counterclockwise from outside to center.

- Fine adjustment can be made on the basis of marker position using ▲, ▼, ◀, ▶ direction of the joystick.

Move joystick ▲ direction



Move joystick ▶ direction



- 6) Press "⑨" button on the commander to return to the coarse adjustment mode.

3-11-4. PJE Adjustment (Sub Deflection Adjustment)

Adjustment ○ : Yes – : No

Adjustment Item	Adjustment Type		
	GRN	RED	BLU
	H / V	H / V	H / V
CENT	○ / ○	○ / ○	○ / ○
SKEW	○ / ○	○ / ○	○ / ○
SIZE	○ / ○	○ / ○	○ / ○
LIN	○ / ○	○ / ○	○ / ○
KEY	– / ○	– / ○	– / ○
PIN	○ / ○	○ / ○	○ / ○
MLIN	○ / –	○ / –	○ / –
MSIZ	○ / –	○ / –	○ / –

Note: If the value of over the limit value, adjust these in the fine adjustment .

Coarse Data Limit Value.

Cent H 35±170 V 20±170, Size H-75max, Lin H Blu -425min, H Red 425max.

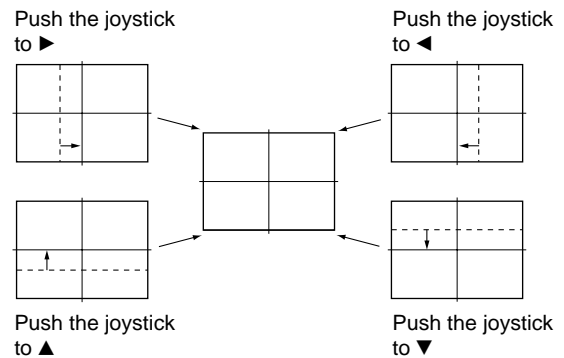
<Adjustment for NTSC Full Mode>

- The adjustment should be done in the numerical order given.

1. Green Adjustment

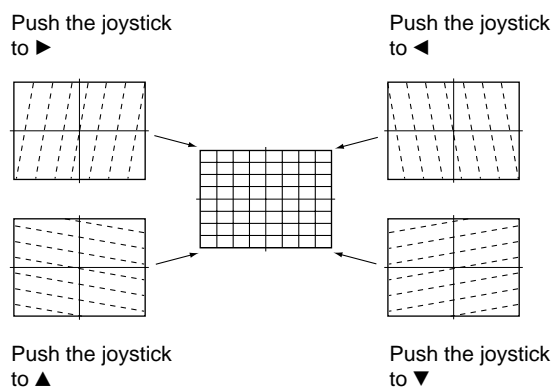
- 1) Place the caps on the red and blue lenses so that only the green color is displayed.
- 2) Enter the monoscope signal to set.
- 3) Select the PJE mode.
- 4) Press "⑥" button on the commander to display internal test signal (crosshatch).
- 5) Select "GRN CENT", and adjust so that the picture coincide in the center of screen.

- GRN CENT (horizontally/vertically)



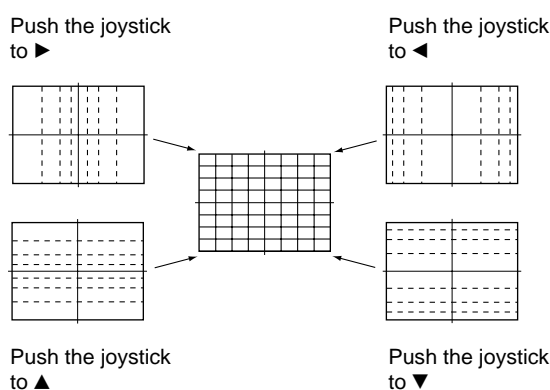
- 7) Select “GRN SKEW”, and correct the tilt of horizontal lines and vertical lines.

• GRN SKEW (horizontally/vertically)



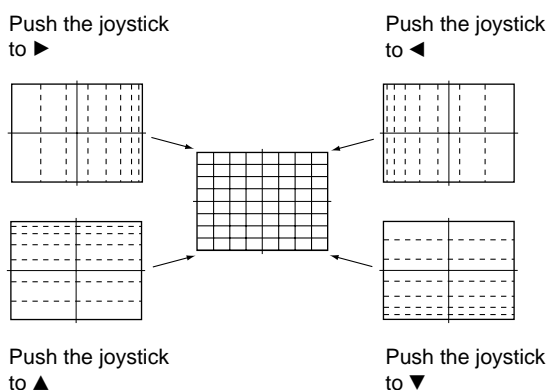
- 8) Select “GRN SIZE”, and adjust so that each distance from center to left end and to right end is equal. Adjust so that each distance from center to top and to bottom is equal.

• GRN SIZE (horizontally/vertically)



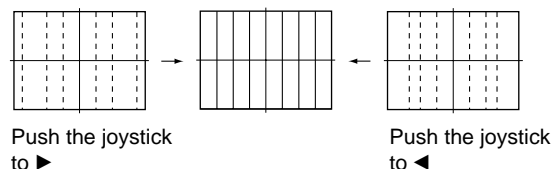
- 9) Select “GRN LIN”, and adjust so that each space at the right end and at the left end of screen is equal. Adjust so that each space at the top and at the bottom of screen is equal.

• GRN LIN (horizontally/vertically)



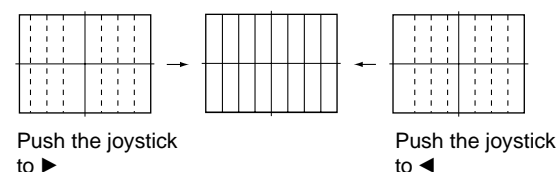
- 10) Select “GRN MSIZ”, and correct the space intervals for the horizontal section of the screen are equal.

• GRN MSIZ (horizontally)



- 11) Select “GRN MLIN”, and correct the sizes of the horizontal line at the center of the screen are symmetrical left and right.

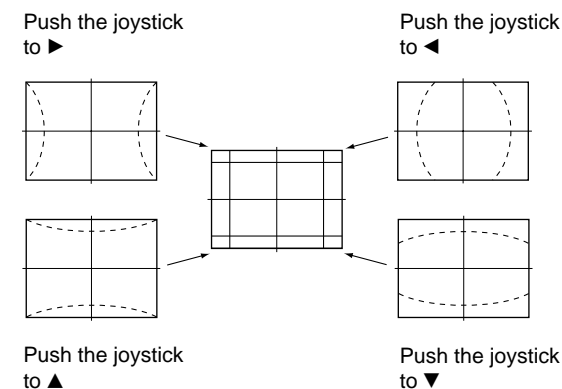
• GRN MLIN (horizontally)



Note: The SIZE and LIN, MSIZ and MLIN adjustments are affected each other.
So adjust these mutually if necessary.

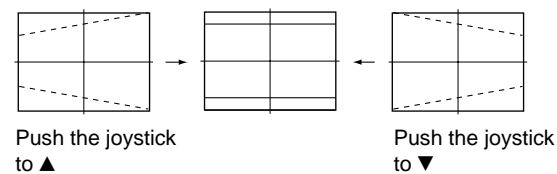
- 12) Select “GRN PIN”, and adjust so that right and left vertical lines on the screen become straight. Adjust so that upper and lower horizontal lines on the screen become straight.

• GRN PIN (horizontally/vertically)



- 13) Select “GRN KEY”, and adjust so that upper and lower horizontal lines on the screen become parallel.

• GRN KEY (vertically)



Note: The VPIN and KEY adjustments are affected each other.
So adjust these mutually if necessary.

- 14) Press “⑨” button on the commander to enter the fine adjustment mode.
- 15) Make fine adjustment so that horizontal lines and vertical lines become straight.
- 16) Press “⑨” button on the commander to return to the coarse adjustment mode.

2. Red Adjustment

- 1) Place a cap on the blue lens so that green and red colors are displayed.
- 2) Press “③” button on the commander to select RED mode.
- 3) Adjust the following items so that red lines overlap with green lines.

- RED CENT (horizontally/vertically)
- RED SKEW (horizontally/vertically)
- RED SIZE (horizontally/vertically)
- RED LIN (horizontally/vertically)
- RED MSIZ (horizontally)
- RED MLIN (horizontally)
- RED PIN (horizontally/vertically)
- RED KEY (vertically)

- 4) Press “⑨” button on the commander to enter the fine adjustment mode.
- 5) Make fine adjustment so that horizontal lines and vertical lines overlap with green lines.
- 6) Press “⑨” button on the commander to return to the coarse adjustment mode.

3. Blue Adjustment

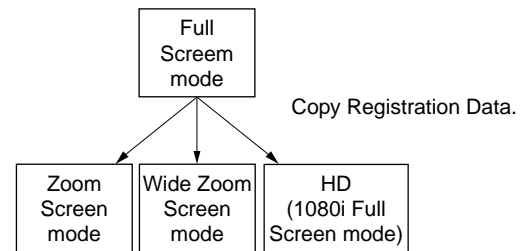
- 1) All colors are displayed.
- 2) Press “③” button on the commander to select BLU mode.
- 3) Hereinafter, use same manner as that of red adjustment to adjust so that the blue lines overlap with green and red lines.

4. Registration Data Writing

- 1) After each adjustment of green, blue, and red for the NTSC Full mode finished, press “MUTING”+ “ENTER” buttons on the commander to write registration data to the NVM.

<Copy All Registration Data to Other modes>

1. Make sure that the adjustment for NTSC Full mode finished and the data have already been written.
2. Select the PJE mode.
3. Select ALCP and set the data to “01”, and press “MUTING”+“ENTER” buttons on the commander.
4. The data of NTSC Full mode are copied to all other modes.



5. Check in the other mode and adjust as the occasion demands. Be sure to write data in each mode.

3-12. AUTO CONVERGENCE OFFSET

This adjustment must be performed after the registration adjustment was made or after readjustment was made by any reason.

1. Darken the periphery of this set.
2. Enter the monoscope signal to set the NTSC Full mode.
3. Select the PJE mode.
4. Press “FLASH FOCUS” button on the front panel of the set. (The offset value is now automatically stored)
5. Select “ERR” of PJE mode.
Confirm ERR is “00”. If ERR is not “00”, recheck. (Refer to 3-12.)
6. Exit the service mode.

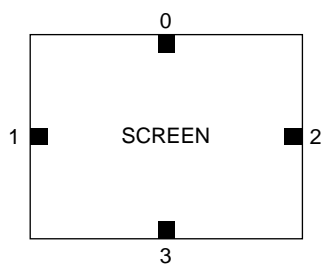
3-13. AUTO REGISTRATION ERROR CODE LIST

If an error code is displayed after the set has been fully adjusted, correctly, please check the following items : position, tilt and sizing. If either of these adjustments are off, even slightly, the auto registration pattern will not hit the four sensors properly. This occurs when the internal generator patterns is being flashed on the screen for the sensor to read. Therefore, auto registration (called auto convergence) cannot operate properly causing an error code to be displayed. In order for this function to operate properly, correct position, tilt and size must be adjusted properly.

ERROR CODE LIST

ERROR CODE	DESCRIPTION	REMEDY
00	No Error	
10	Sensor 0 low output	Check sensor 0, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust "64 VUP" if necessary.
11	Sensor 1 low output	Check sensor 1, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust "69 HLB" if necessary.
12	Sensor 2 low output	Check sensor 2, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust "73 HRIV" if necessary.
13	Sensor 3 low output	Check sensor 3, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust "68 VLOW" if necessary.
20	Sensor 0 high output	Check sensor 0 and circuit.
21	Sensor 1 high output	Check sensor 1 and circuit.
22	Sensor 2 high output	Check sensor 2 and circuit.
23	Sensor 3 high output	Check sensor 3 and circuit.
30	V CENT or SKEW adjustment loop overflow	Check "66 VMID" data and check registration condition.
31	H CENT or SKEW adjustment loop overflow	Check "71 HMID" data and check registration condition.
32	H LIN or SIZE adjustment loop overflow	Check "71 HMID" data and check registration condition.
40	V CENT regi data overflow	Check "66 VMID" data and confirm V CENT data (all mode) is not near 511.
41	H CENT regi data overflow	Check "71 HMID" data and confirm H CENT data (all mode) is not near 511.
42	V SKEW regi data overflow	Check "66 VMID" data and confirm V SKEW data (all mode) is not near 511.
43	H SKEW regi data overflow	Check "71 HMID" data and confirm H SKEW data (all mode) is not near 511.
44	H LIN regi data overflow	Check "71 HMID" data and confirm H CENT data (all mode) is not near 511.
45	H SIZE regi data overflow	Check "71 HMID" data and confirm H CENT data (all mode) is not near 511.
50	V CENT regi data overdraw	Check "66 VMID" data and confirm V CENT data (all mode) is not near -512.
51	H CENT regi data overdraw	Check "71 HMID" data and confirm H CENT data (all mode) is not near -512.
52	V SKEW regi data overdraw	Check "66 VMID" data and confirm V SKEW data (all mode) is not near -512.
53	H SKEW regi data overdraw	Check "71 HMID" data and confirm H SKEW data (all mode) is not near -512.
54	H LIN regi data overdraw	Check "71 HMID" data and confirm H CENT data (all mode) is not near -512.
55	H SIZE regi data overdraw	Check "71 HMID" data and confirm H CENT data (all mode) is not near -512.
60	H or V CENT offset overflow	Check "71 HMID" data and check "66 VMID" data.
61	H or V SKEW offset overflow	Check SKEW adjustment.
62	H SIZE or LIN offset overflow	Check "71 HMID" data, check "66 VMID" data and check SIZE and LIN adjustment.
70	H or V CENT offset overdraw	Check "71 HMID" data and check "66 VMID" data.
71	H or V SKEW offset overdraw	Check SKEW adjustment.
72	H SIZE or LIN offset overdraw	Check "69 HLB" data, check "73 HRIV" data and check SIZE and LIN adjustment.
80	SIZE limit error	Check that H SIZE is negative and not near zero.

[SENSOR POSITION]

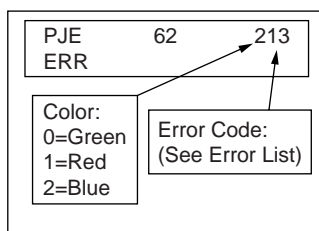


0 : UPPER SENSOR
1 : LEFT SENSOR
2 : RIGHT SENSOR
3 : LOWER SENSOR

Error codes in normal (customer) mode are not displayed. You must enter PJED service mode to see to the error code.

AUTO REGI ERROR CODE FORMAT

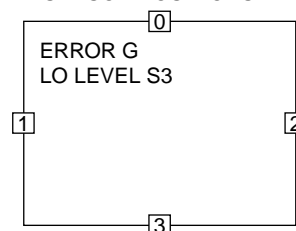
ERROR EXAMPLE



Example: Blue low Level Sensor 3
0-Green
1-Red
2-Blue

When executing flash focus in service mode, the error will be displayed in text format (see below).

SENSOR POSITIONS



SECTION 4

CIRCUIT ADJUSTMENTS

4-1. P & P SUB CONTRAST ADJUSTMENT (VIDEO) (SCON)

1. Receive the signal.
TV terminal (sub) : Color-bar (white-75%, 7.5% setup)
VIDEO terminal (main) : Color-bar (white-75%, 7.5% setup)
2. VIDEO MODE : Pro
PICTURE : maximum
COLOR : minimum
RGB Signal : off
3. Set to P & P mode, and set to service mode.
4. Connect an oscilloscope between the check point and ground.
Check points : CN13 pin C20 (Main)
(A Board) : CN13 pin A19 (Sub)
5. Select “2103-1-02”(Main scon), and adjust so that the waveform level of VWB is $1.11 \pm 0.03V_{p-p}$.
6. Select “2103-2-02”(Sub scon), and adjust so that the waveform level of VWB is $1.15 \pm 0.03V_{p-p}$.
7. Write the data into memory.

MUTING → ENTER

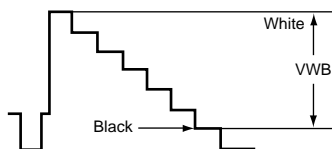


Fig. 4-1

4-2. P & P SUB CONTRAST ADJUSTMENT (RF) (SCON)

1. Receive the signal.
TV terminal (sub) : Color-bar (white-75%, 7.5% setup)
VIDEO terminal (main) : Color-bar (white-75%, 7.5% setup)
2. VIDEO MODE : Pro
PICTURE : maximum
COLOR : minimum
RGB Signal : off
3. Set to P & P mode, and set to service mode.
4. Connect an oscilloscope between the check point and ground.
Check points : CN13 pin C20 (Main)
(A Board) : CN13 pin A19 (Sub)
5. Select “2103-1-02”(Main scon), and adjust so that the waveform level of VWB is $1.11 \pm 0.03V_{p-p}$.
6. Select “2103-2-02”(Sub scon), and adjust so that the waveform level of VWB is $1.15 \pm 0.03V_{p-p}$.
7. Write the data into memory.

MUTING → ENTER

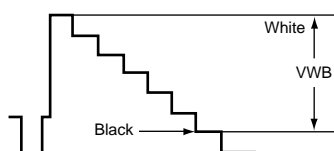


Fig. 4-2

4-3. P & P SUB-HUE AND SUB-COLOR ADJUSTMENT (SHUE, SCOL)

1. Receive the signal.
TV terminal (sub) : Color-bar (white-75%, 7.5% setup)
VIDEO terminal (main) : Color-bar (white-75%, 7.5% setup)
2. VIDEO MODE : Pro
PICTURE : maximum
COLOR : center
RGB Signal : on
3. Set to P & P mode, set to service mode.
4. Connect an oscilloscope between pin ③ of CN702 (A board) connector and ground.
5. Select “2103-1-03 SCOL, -04 SHUE”(Main), and adjust them to have $VB1 \leq VB4$ and $VB2 \leq VB3$ in the waveform levels.
6. Select “2103-2-03 SCOL, -04 SHUE”(Sub), and adjust them to have $VB1 \leq VB4$ and $VB2 \leq VB3$ in the waveform levels.
7. Write the data into memory.

MUTING → ENTER

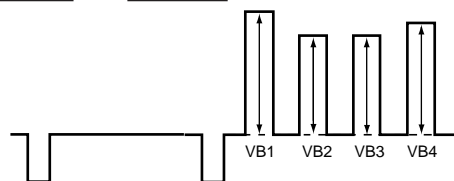


Fig. 4-3

4-4. P & P SUB-HUE AND SUB-COLOR ADJUSTMENT (SHUE, SCOL)

1. Receive the signal.
TV terminal (main) : Color-bar (white-75%, 7.5% setup)
VIDEO terminal (sub) : Color-bar (white-75%, 7.5% setup)
2. VIDEO MODE : Pro
PICTURE : maximum
COLOR : center
RGB Signal : on
3. Set to P & P mode, set to service mode.
4. Connect an oscilloscope between pin ③ of CN702 (A board) connector and ground.
5. Select “2103-1-03 SCOL, -04 SHUE”(Main), and adjust them to have $VB1 \leq VB4$ and $VB2 \leq VB3$ in the waveform levels.
6. Select “2103-2-03 SCOL, -04 SHUE”(Sub), and adjust them to have $VB1 \leq VB4$ and $VB2 \leq VB3$ in the waveform levels.
7. Write the data into memory.

MUTING → ENTER

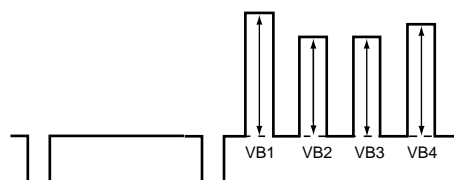


Fig. 4-4

4-5. BLUE OFFSET ADJUSTMENT

1. Receive the all black (1080i, component) signal with VIDEO 5 input, and set PICTURE to maximum.
2. Connect an oscilloscope between CN5 ⑦ pin (B) on the A board and ground.
3. Set in the service mode and select the category “ 2150D-2 ”.
4. Adjust “ 3 SLIN ” so that the waveform level is $2.20 \pm 0.05 \text{ Vp-p}$.
5. After adjustment finished, press “ **MUTING** ” + “ **ENTER** ” buttons on the commander to write the data to the NVM.
6. Receive the RF signal and change the wide to mode to “ Wide Zoom ” Copy the same data to “ 3 SLIN ”.

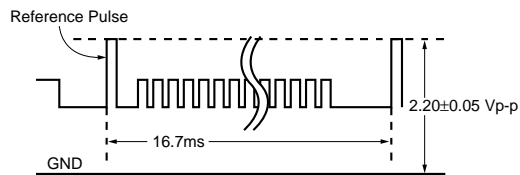


Fig. 4-5

SECTION 5

SAFETY RELATED ADJUSTMENTS

[D BOARD]

5-1. HV REGULATION CIRCUIT CHECK AND ADJUSTMENT

When replacing the following components marked with ■ on the schematic diagram always check HV regulation, and if necessary re-adjust.

- : VR8001
- : C8079, C8083, C8090, C8129, D8013, D8015, D8038, D8043, IC8006, Q8021, R8055, R8099, R8102, R8128, R8129, R8131, R8139, R8140, R8142, R8153, R8163, R8223, R8230, T8004 (LOT), T8005 (FBT), HV block, D board

OPERATION CHECK

1. Receive the all white signal.
2. Set PIC MAX/BRT CENT.
3. Confirm that the voltage between CN8015 ① PIN and GND is less than 7.80VDC.

HV REGULATION ADJUSTMENT

1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.
2. Power on the set.
3. Repeat steps 1 and 2 as above.
4. Confirm that the static voltmeter reading is $31.0 \pm 0.4V$.
5. If not, adjust with VR8001 to the specified value.
6. After adjustment, put the VR cover on VR8001 as shown below and apply sufficient amount of epoxy resin around VR8001.

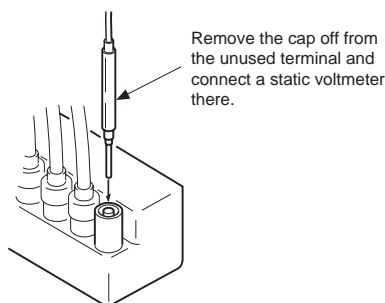


Fig. 4-1

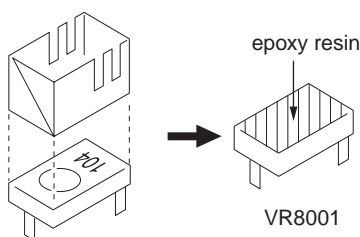


Fig. 4-2

5-2. HV HOLD DOWN CIRCUIT OPERATION CHECK AND ADJUSTMENT

When replacing the following components marked with ■ on the schematic diagram always check hold-down voltage and if necessary re-adjust.

- : VR8002
- : C8054, C8086, C8088, C8100, C8104, C8118, C8123, C8124, D8019, D8020, D8022, D8028, D8036, FB8001, IC8008, Q8035, Q8038, R8035, R8043, R8159, R8166, R8171, R8196, R8201, T8004 (LOT), T8005 (FBT), HV block, D board

OPERATION CHECK

1. Receive the dot signal.
2. Set PIC MIN/BRT MIN.
3. Confirm that the voltage between cathode of D8038(JW171) and GND is more than 23.0V DC.
4. Using an external DC Power supply, apply the voltage shown below between cathode of D8038(JW171) on "D" and GND, then confirm that the HV-Prot circuit works.(Raster disappears.)
Apply DC voltage: Less than 29.05V DC.

HV HOLD-DOWN ADJUSTMENT

1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.
2. Power on the set.
3. Connet an external 10kΩ VR at CN8015 and adjust this VR so that the high voltage is 34.50kV.
4. Adjust VR8002 to the point that the HV-Prot circuit works (Raster disappears) at $34.50 \pm 0.50kV$ reading on the static voltmeter.
5. After adjustment, put the VR cover on VR8002 and apply sufficient amount of epoxy resin around VR8002 as the same manner for VR8001.

[G BOARD]

5-3. +B MAX VOLTAGE CONFIRMATION

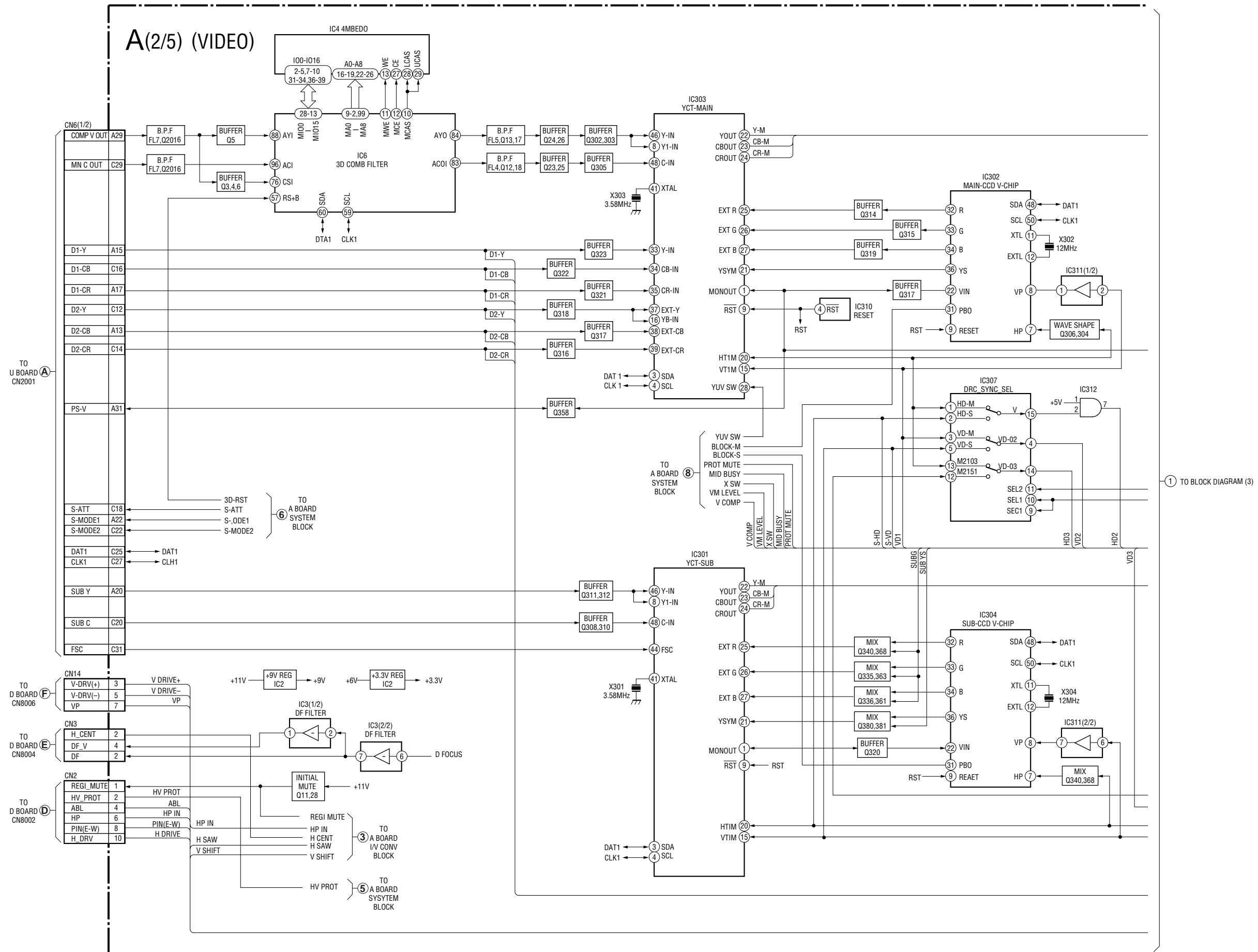
The following adjustments should always be performed when replacing IC501, R5032.

1. Supply 130VAC to variable autotransformer.
2. Receive dot signal pattern and set the PICTURE and BRIGHTNESS settings to their minimum.
3. Confirm the voltage of TP +B 135V is less than 137.0Vdc.
4. If step 4 not satisfied , replace IC501 and repeat above steps.

5-4. +B OVP CONFIRMATION

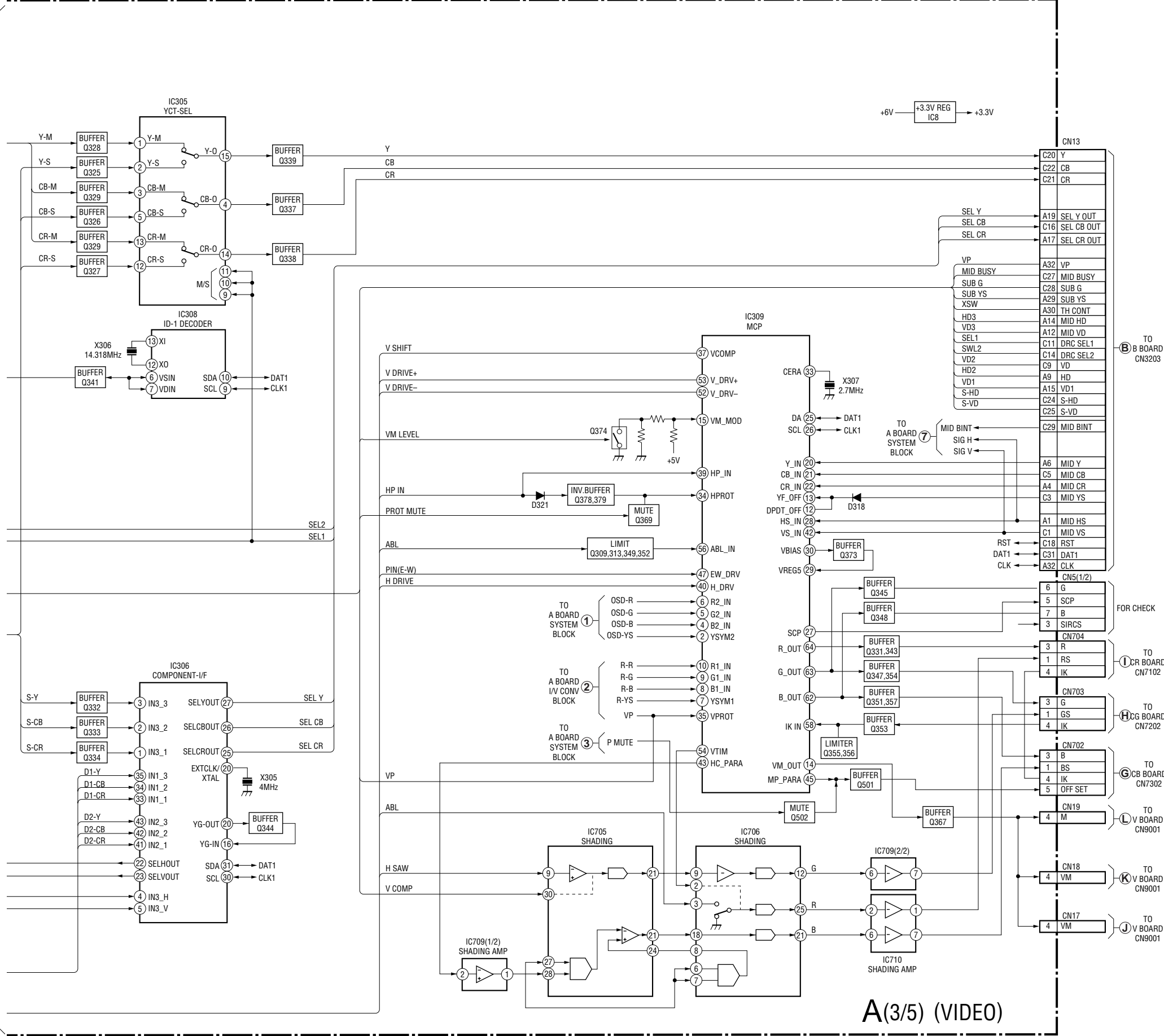
1. Add to low voltage power supply between to TP. 5001 and ground.
2. Supply 120VAC to variable autotransformer.
3. Power on the Set and receive dot signal pattern.
4. Set the PICTURE and BRIGHTNESS settings.
5. Check the OVP is activated.
Operate :less than 2.50V

BLOCK DIAGRAM (2)



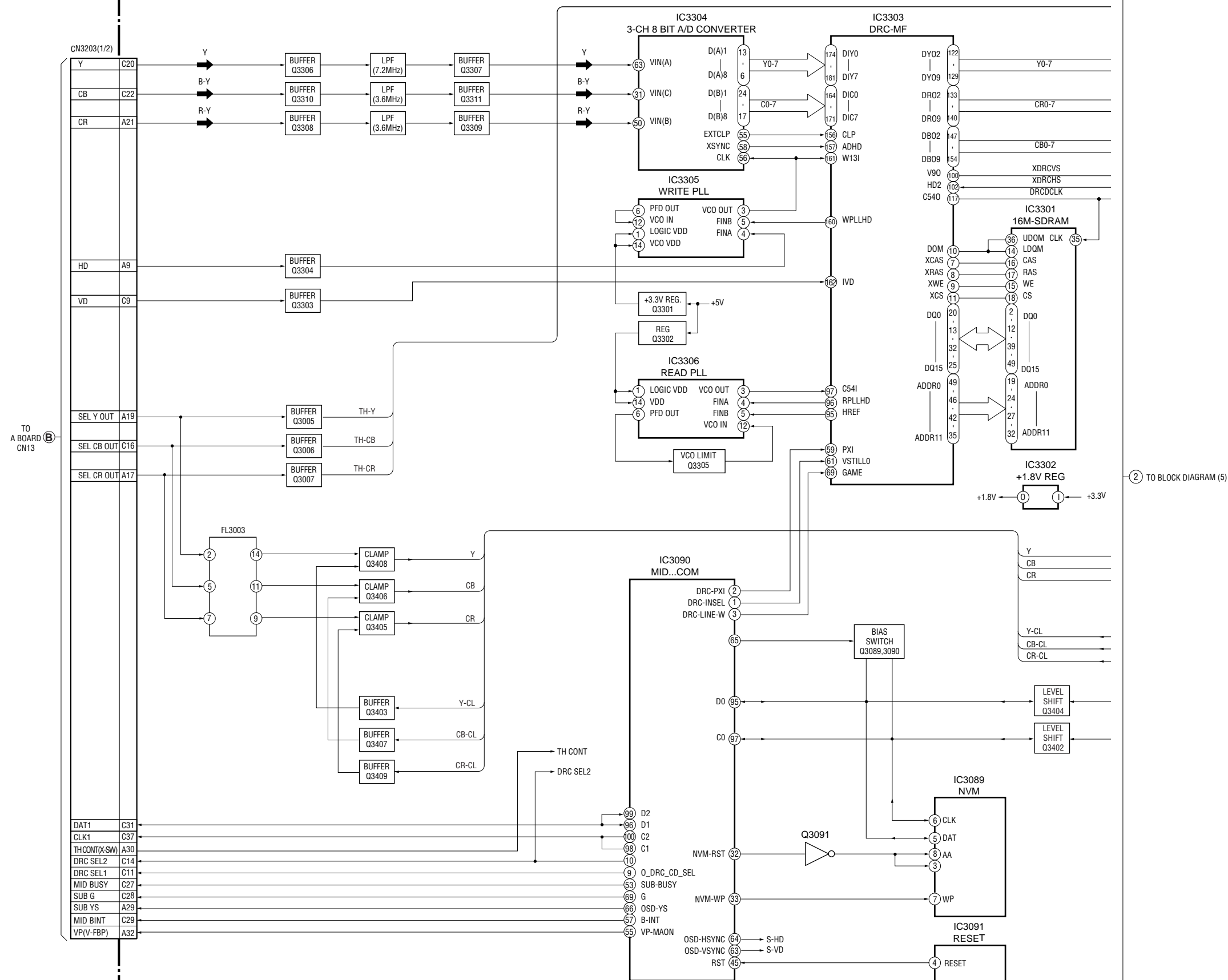
BLOCK DIAGRAM (3)

TO BLOCK DIAGRAM (2) ①



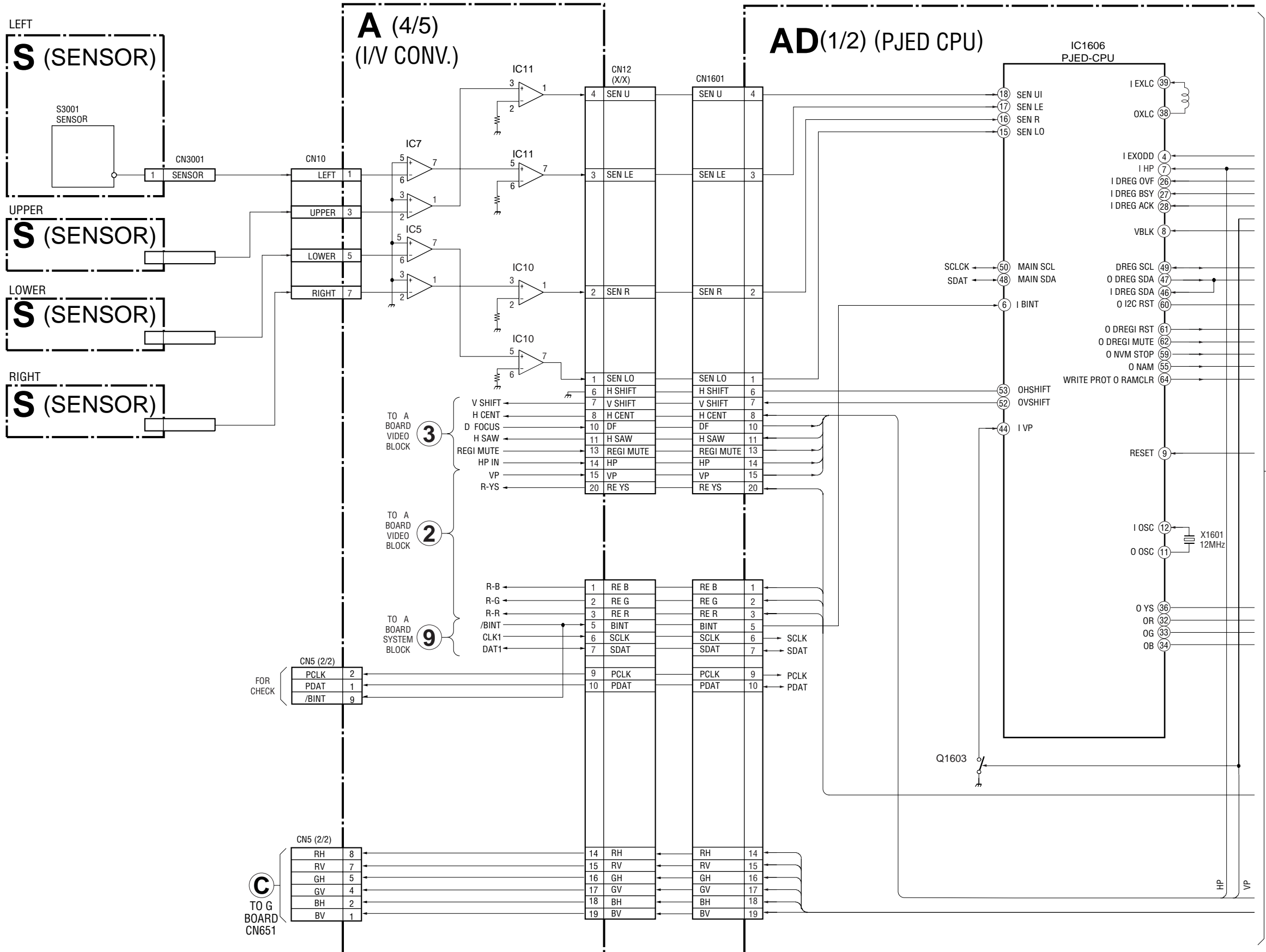
A(3/5) (VIDEO)

B(1/2) (DRC PROCESS)

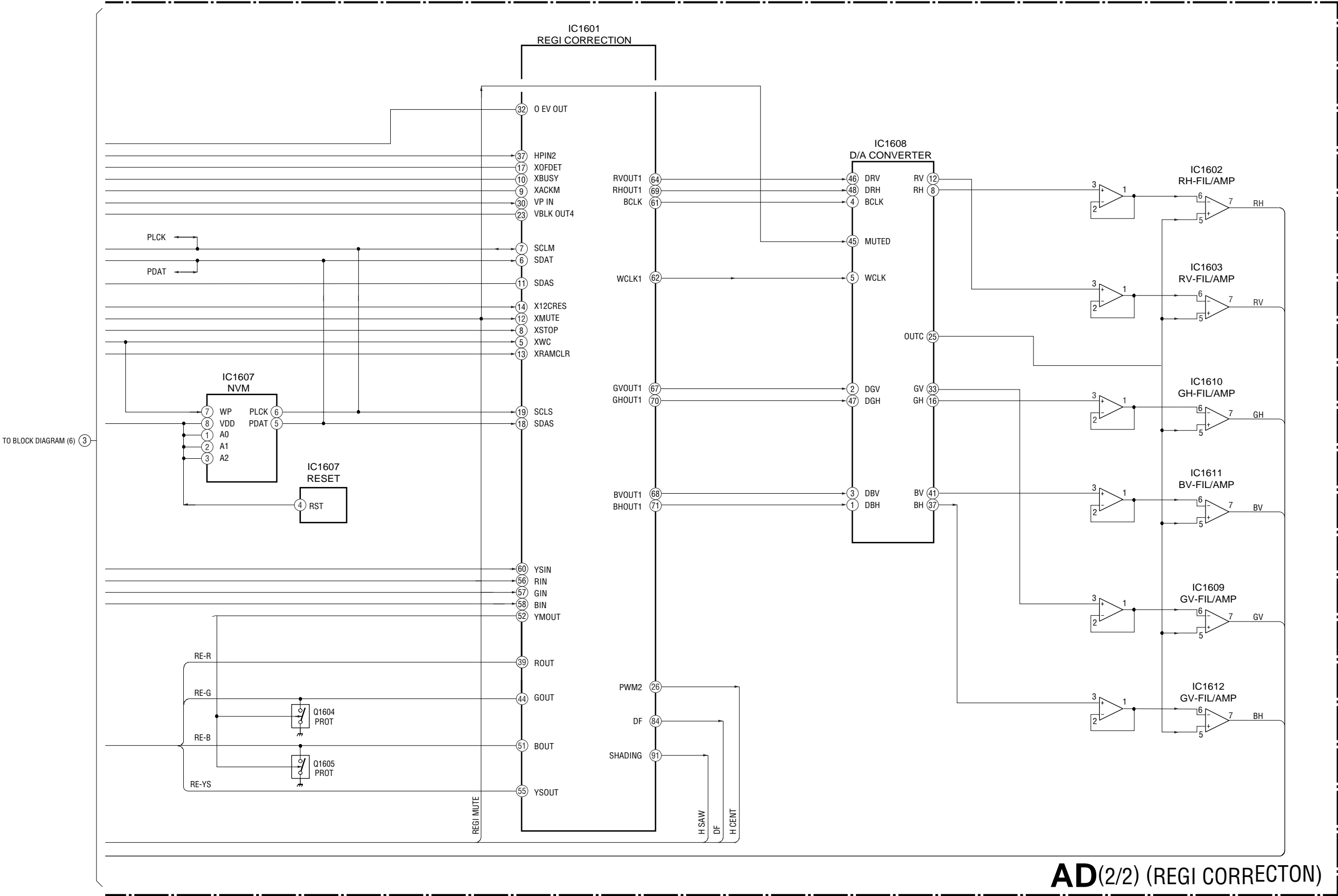




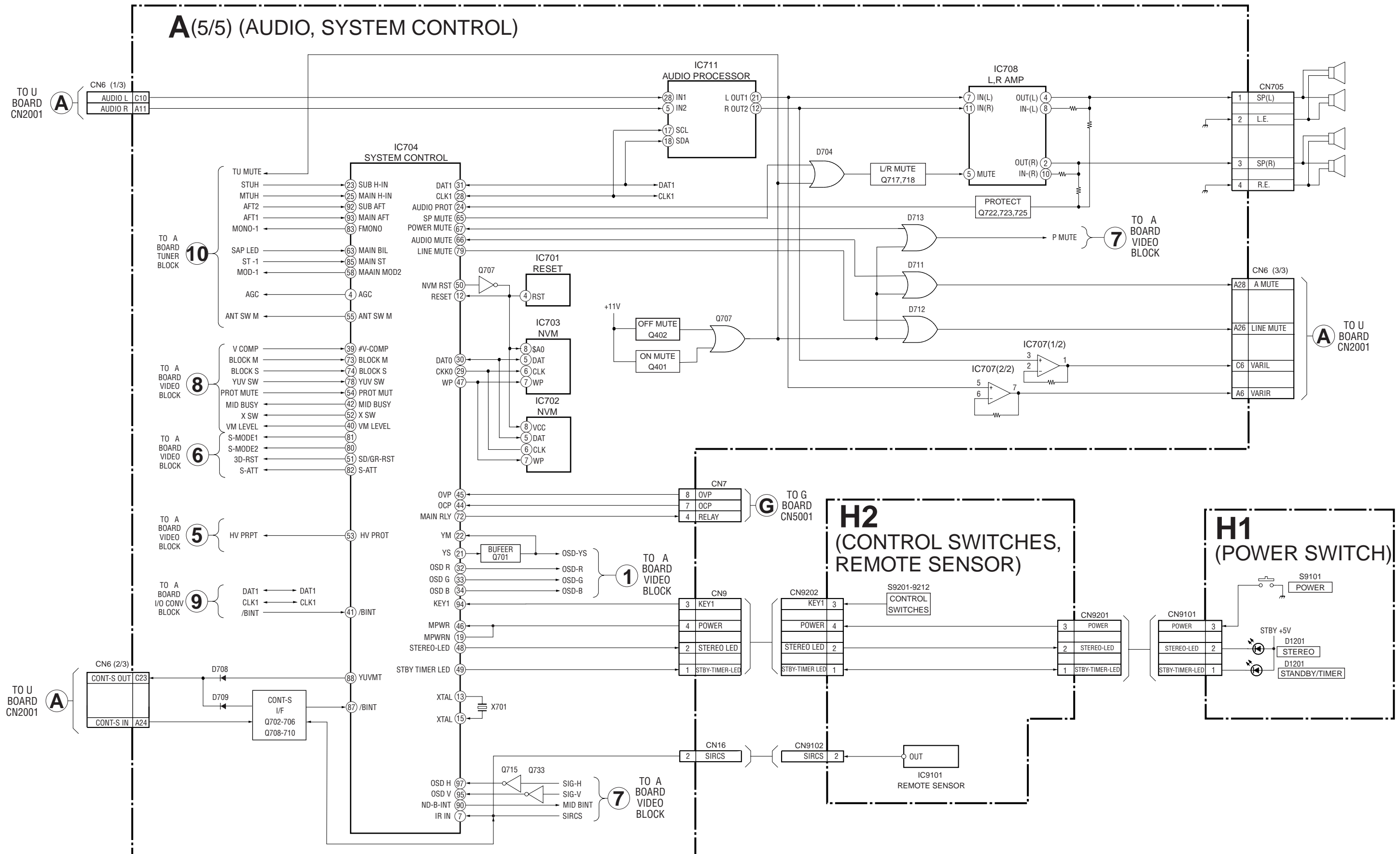
BLOCK DIAGRAM (6)



BLOCK DIAGRAM (7)



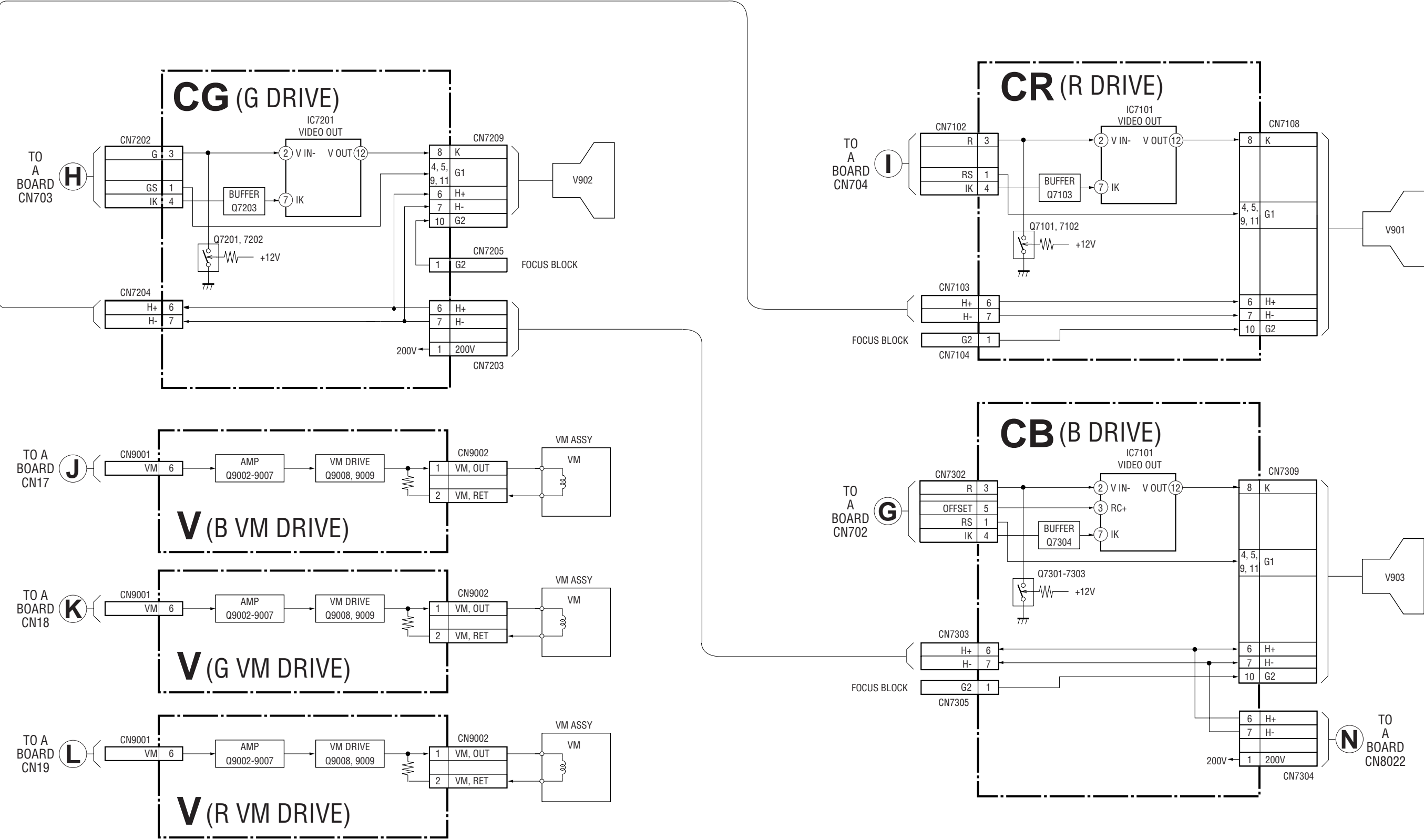
BLOCK DIAGRAM (8)



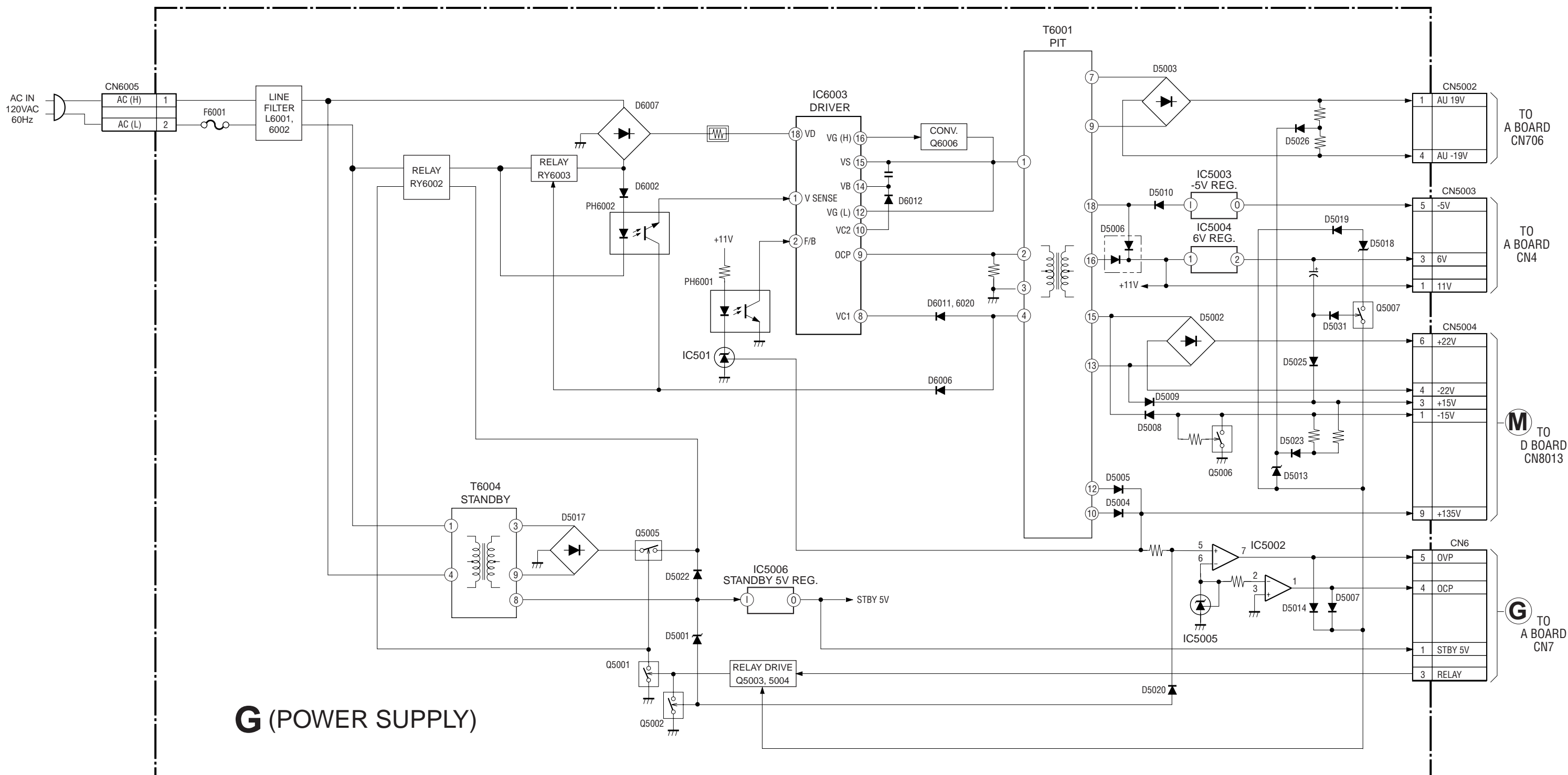
BLOCK DIAGRAM (9)



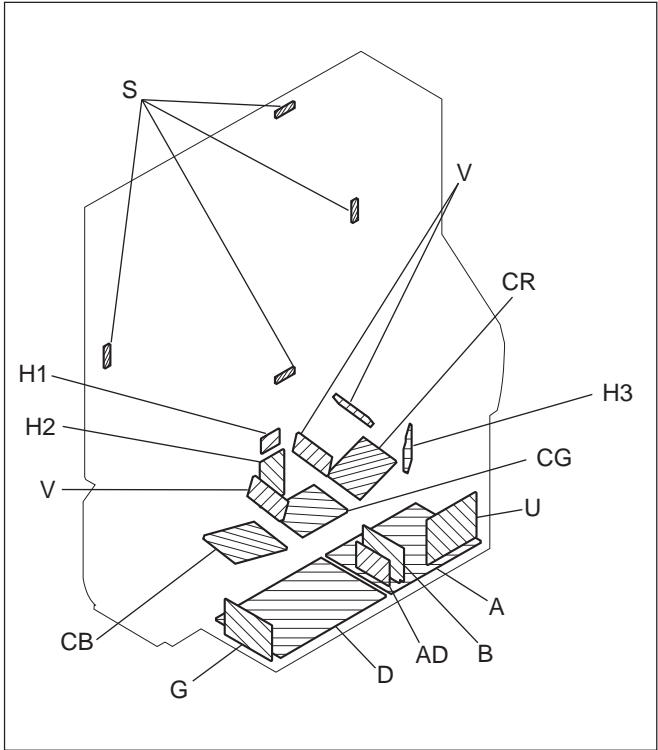
BLOCK DIAGRAM (10)



BLOCK DIAGRAM (11)



6-2. CIRCUIT BOARDS LOCATION



Note: The symbol display is on the component side.

The components identified by shading and mark are critical for safety. Replace only with part number specified.

The symbol indicate fast operating fuse. Replace only with fuse of same rating as maked.

Note: Les composants identifiés per un tramé et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Le symbole indique une fusible a action rapide. Doit etre remplacee par une fusible de meme yaleur, comme maque.

6-3. SCHEMATIC DIAGRAMS

Note:

- Capacitors without voltage indication are all 50V.
- All resistors are in ohms.
k Ω =1000 Ω , M Ω =1000k Ω
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

Pitch : 5mm
Rating electrical power : $\frac{1}{4}$ W

- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-chassis.
- The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.

Should replacement be required, replace only with the value originally used.

- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved. (Refer to VR8001 and VR8002 adjustment on Page 33.)

- Readings are taken with a NTSC color-bar signal input.
- Readings are taken with a 10M Ω digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.

* : Measurement impossibility.

- Circled numbers are waveform references.

: B+ bus.

: B- bus.

: signal path.(RF)

Reference information

RESISTOR : RN METAL FILM
: RC SOLID
: FPRD NONFLAMMABLE CARBON
: FUSE NONFLAMMABLE FUSIBLE
: RW NONFLAMMABLE WIREWOUND
: RS NONFLAMMABLE METAL OXIDE
: RB NONFLAMMABLE CEMENT
: \times ADJUSTMENT RESISTOR
COIL : LF-8L MICRO INDUCTOR
CAPACITOR : TA TANTALUM
: PS STYROL
: PP POLYPROPYLENE
: PT MYLAR
: MPS METALIZED POLYESTER
: MPP METALIZED POLYPROPYLENE
: ALB BIPOLAR
: ALT HIGH TEMPERATURE
: ALR HIGH RIPPLE

- Divided schematic diagram

Schematic diagrams of A, AD, B, D, G, and U boards are divided into several pieces. Information to where the line is to be connected is printed at the end of each.

For example, [TO A1/5,A2/5_1] means the line is connected to Ref. No. 1 of A(1/5) and A(2/5) schematic diagrams.

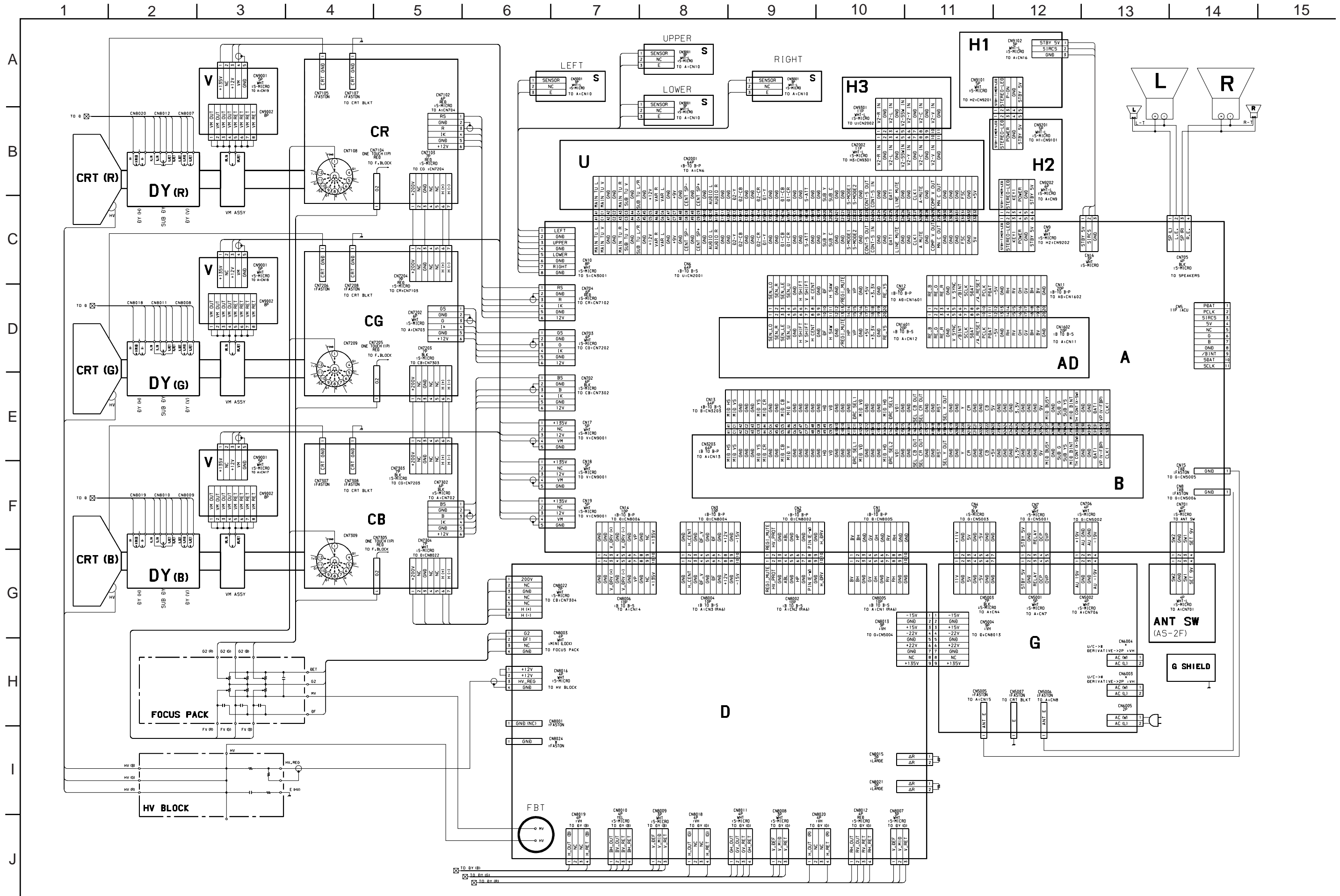
TO A1/5,A2/5_1
 Ref. No.
 Name of divided schematic diagram

Terminal name of semiconductors in silk screen printed circuit (*)

	Device	Printed symbol	Terminal name	Circuit
①	Transistor		Collector Base Emitter	
②	Transistor		Collector Base Emitter	
③	Diode		Cathode Anode	
④	Diode		Cathode Anode (NC)	
⑤	Diode		Cathode Anode (NC)	
⑥	Diode		Common Anode Cathode	
⑦	Diode		Common Anode Cathode	
⑧	Diode		Common Anode Anode	
⑨	Diode		Common Anode Anode	
⑩	Diode		Common Cathode Cathode	
⑪	Diode		Common Cathode Cathode	
⑫	Diode		Anode Anode Cathode Anode	
⑬	Transistor (FET)		Drain Source Gate	
⑭	Transistor (FET)		Drain Source Gate	
⑮	Transistor (FET)		Source Drain Gate	
⑯	Transistor		Emitter Collector Base	
⑰	Transistor		C2/B1/E1 E2/B2/C1	
⑱	Transistor		C1/B2/E2 E1/B1/C2	
⑲	Transistor		C1 B2 E2 E1 B1 C2	
⑳	Transistor		C1 B2 E2 E1 B1 C2	
㉑	Transistor		E2 B1 E1 C2 C1(B2)	
㉒	Transistor		(B2) B1 E1 E2 C1 C2	
㉓	Transistor		(B2) E2 E1 B1 C2 C1	
—	Discrete semiconductot			

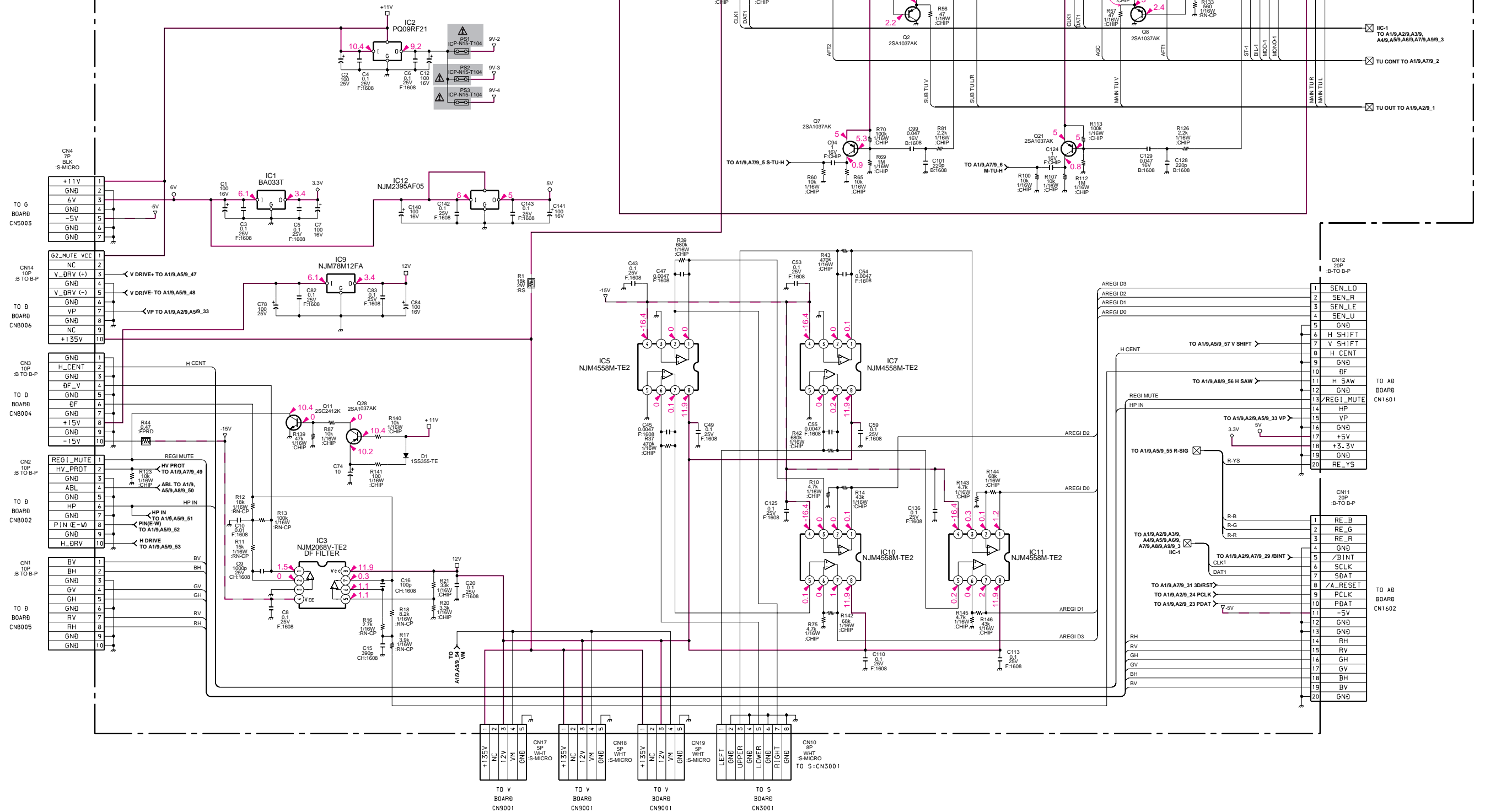
(Chip semiconductors that are not actually used are included.)

Ver.1.5



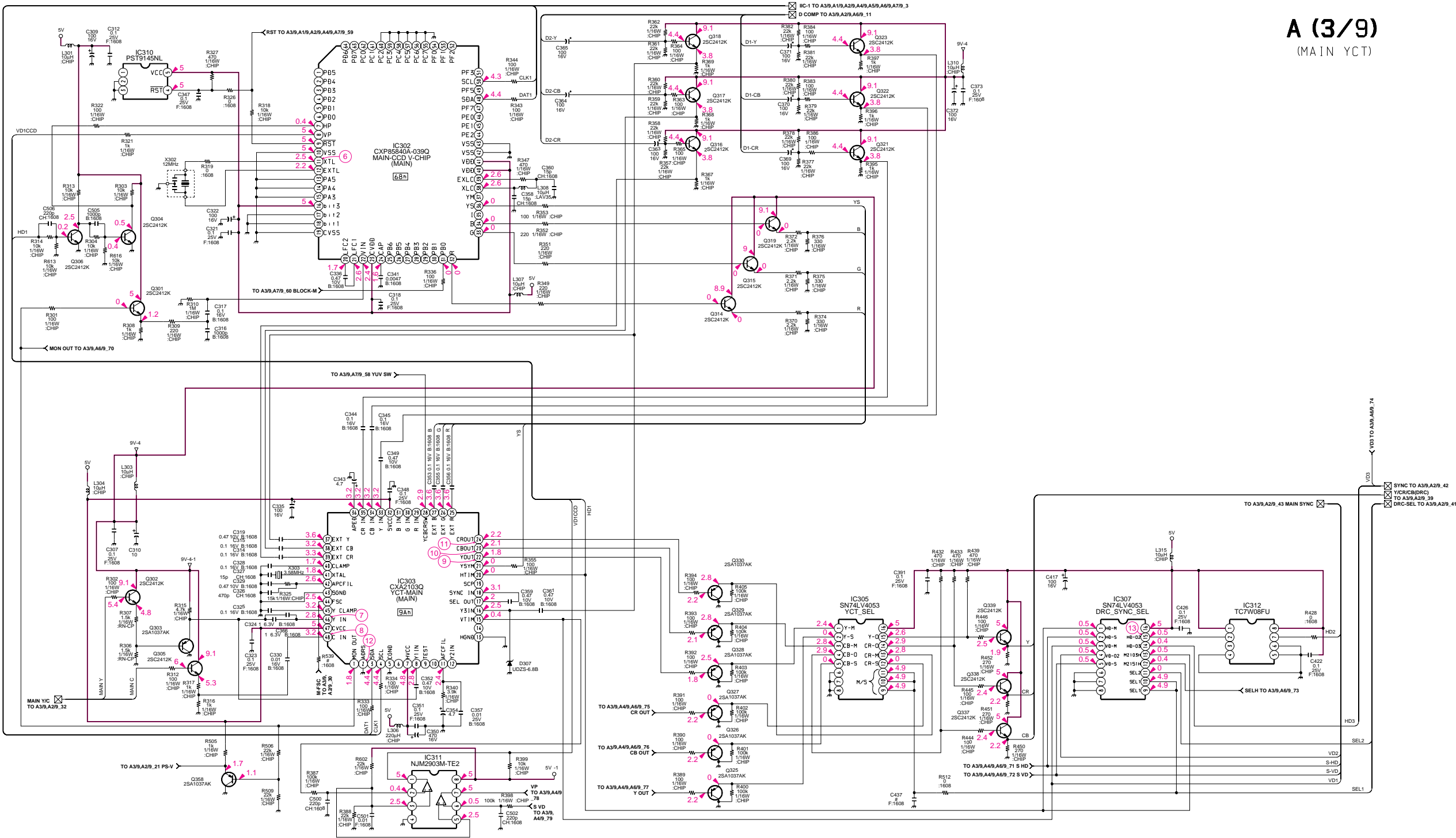
A (1/9)

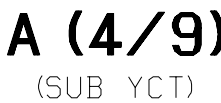
(TUNER, AREG
I/V CONVERTER)





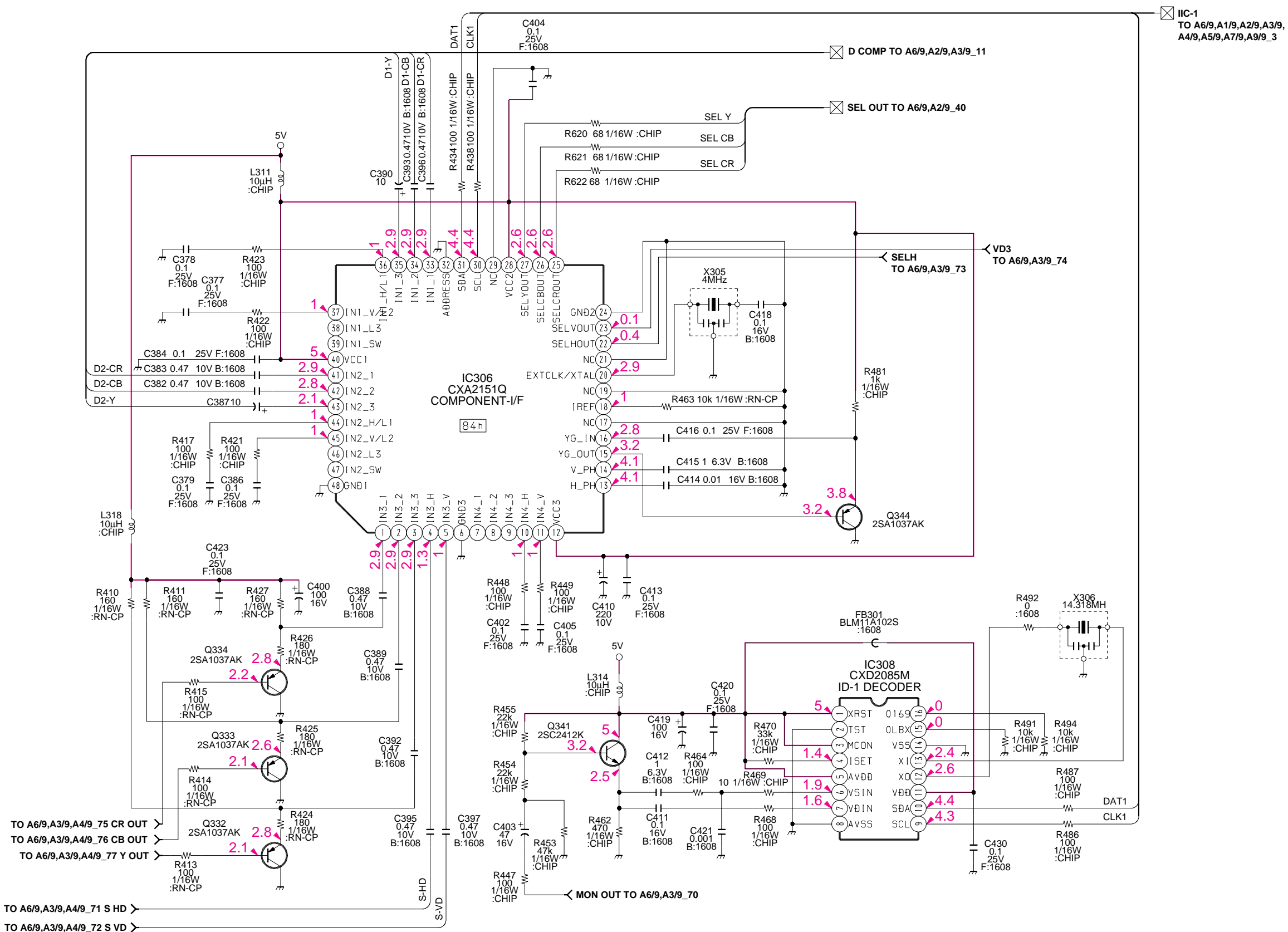
A (3/9)
(MAIN YCT)







A (6/9) (COMPONENT I/F, ID-1 DECODER)







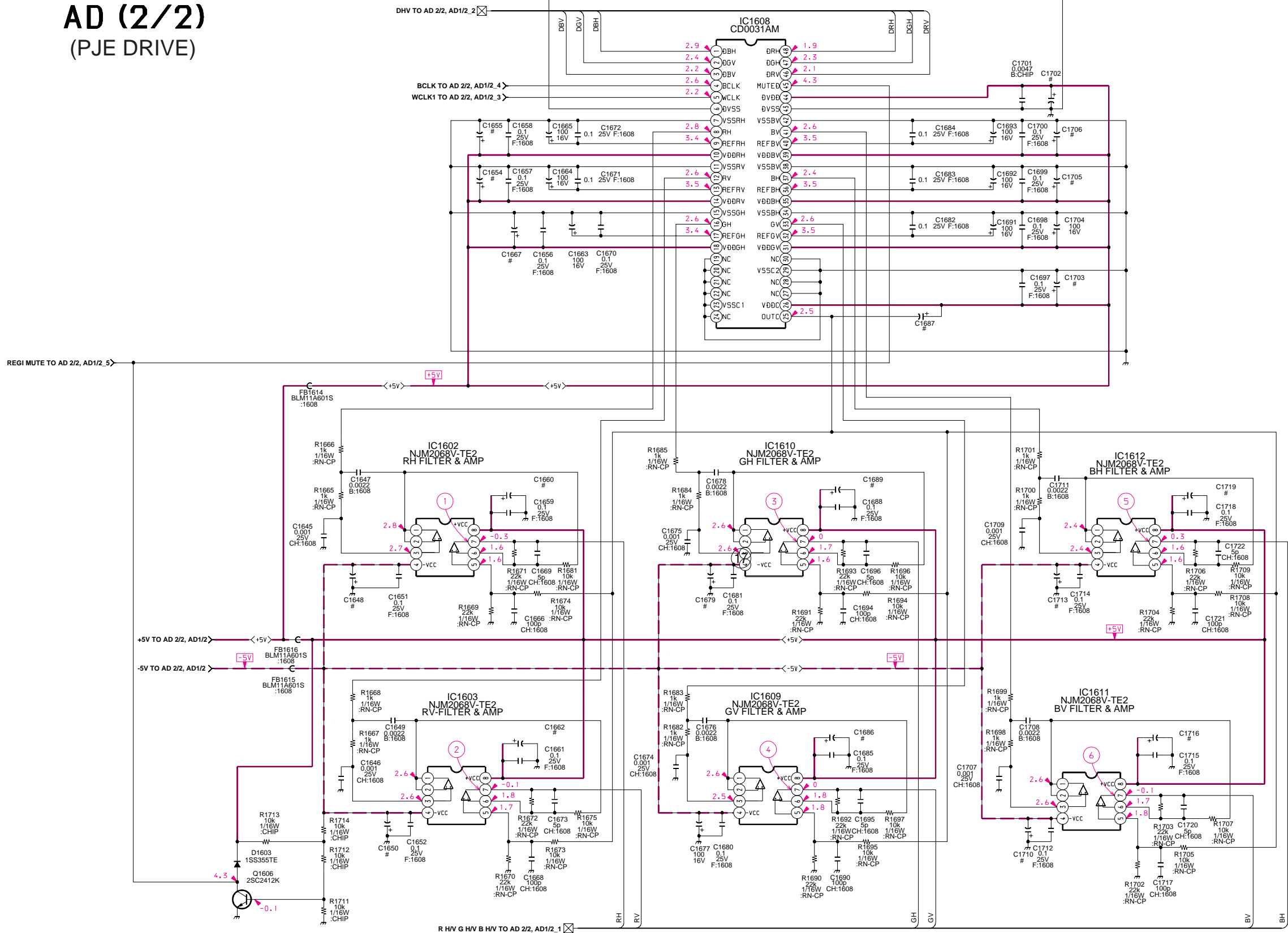


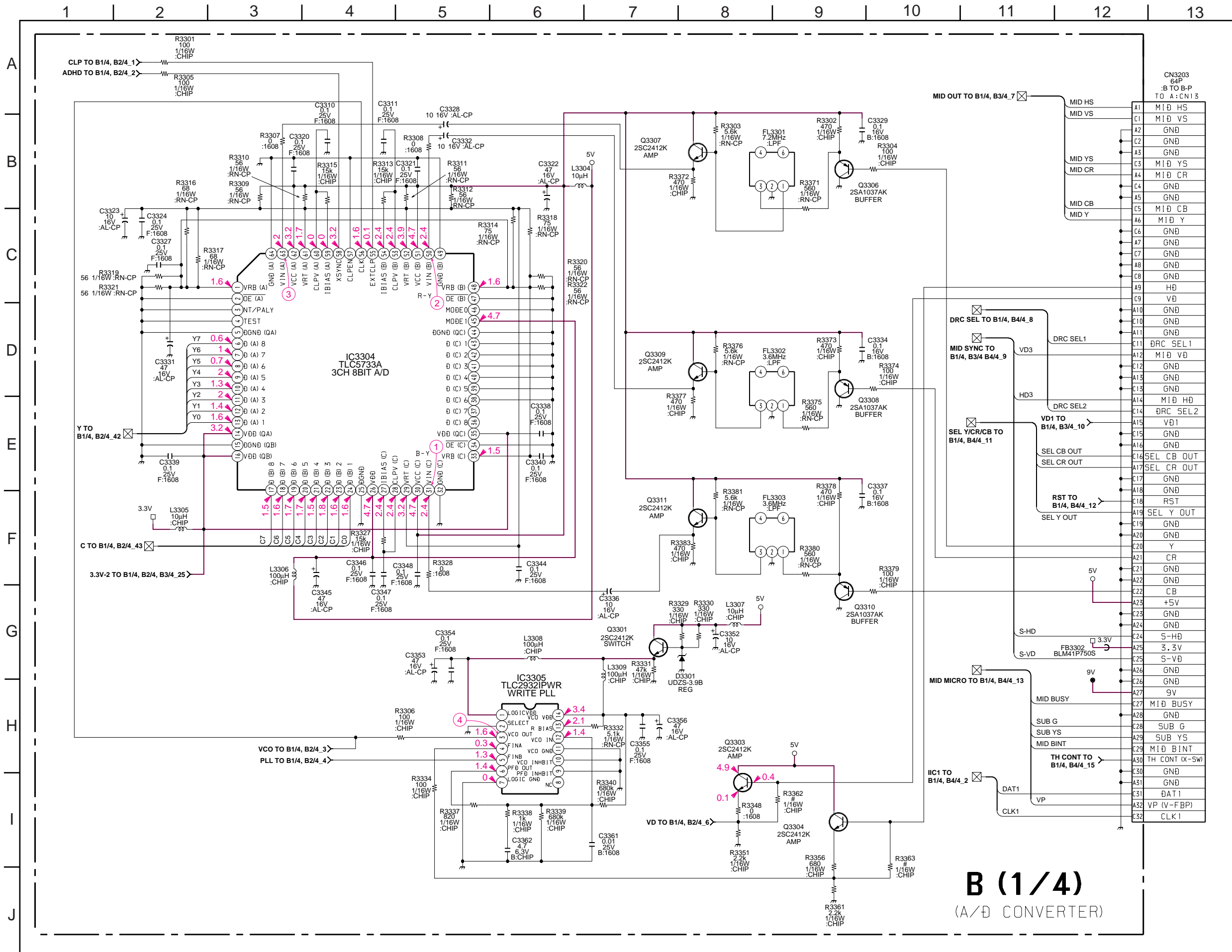


1 2 3 4 5 6 7 8 9 10 11 12 13

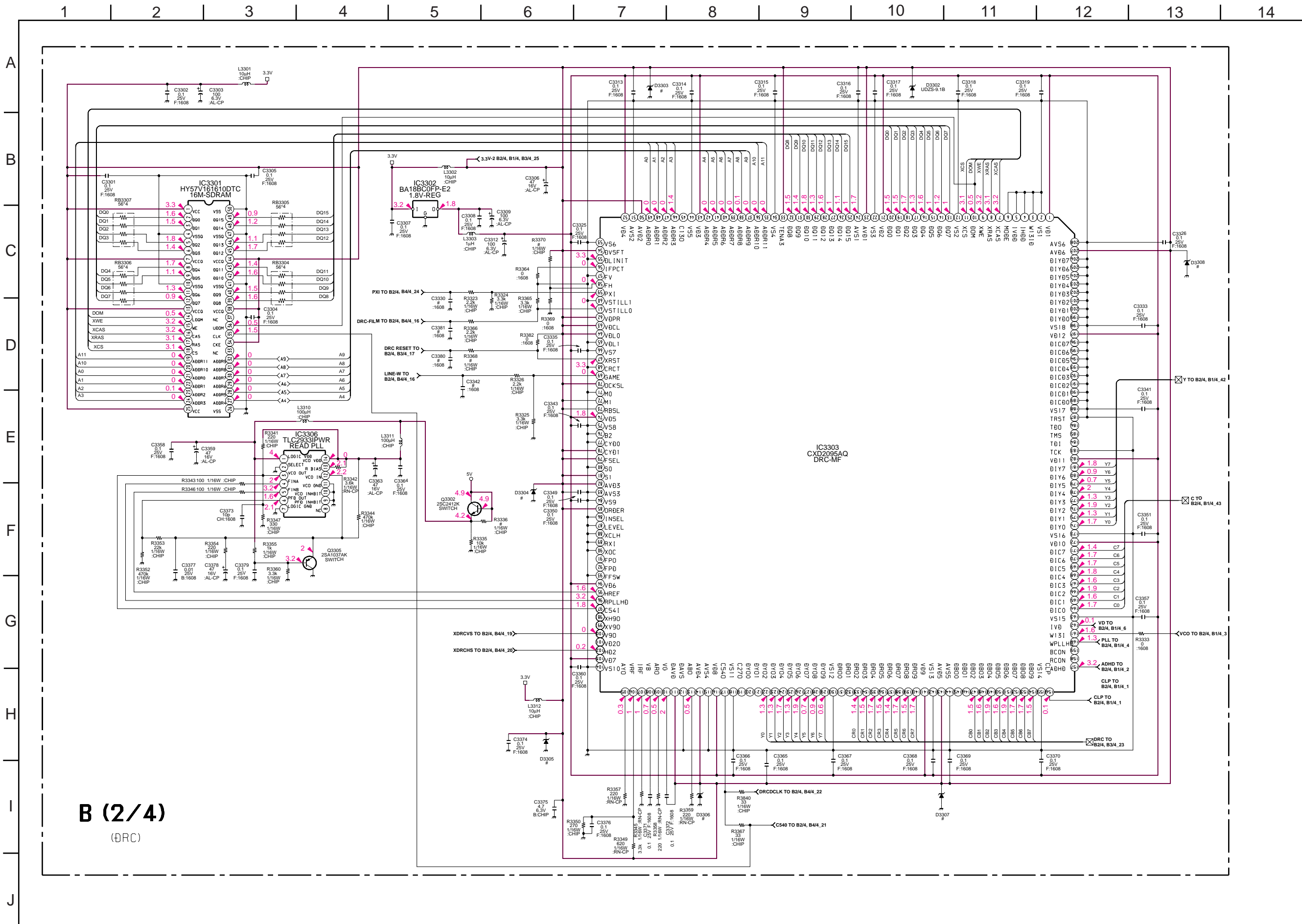
A
B
C
D
E
F
G
H
I
J

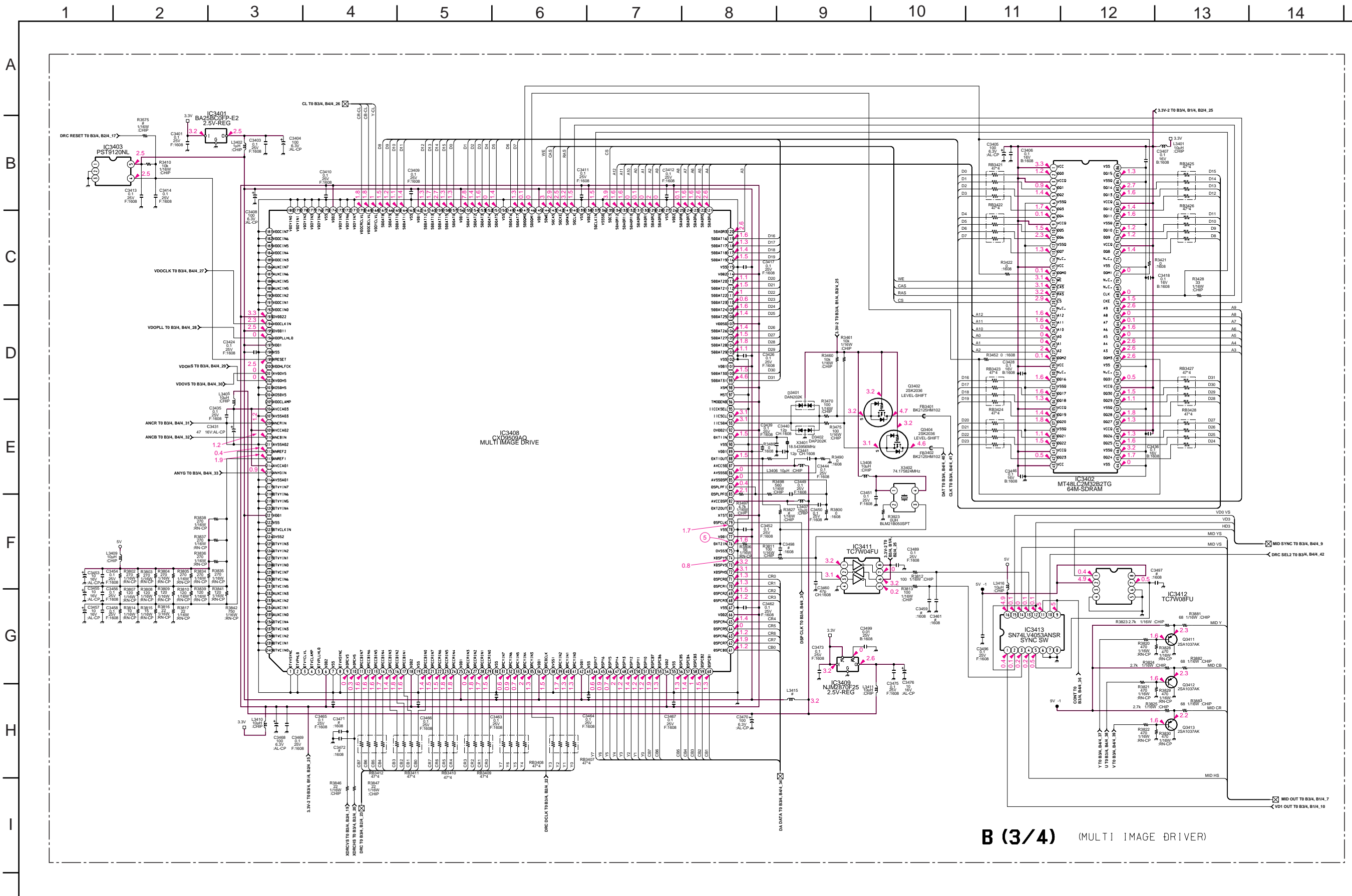
AD (2/2)
(PJE DRIVE)

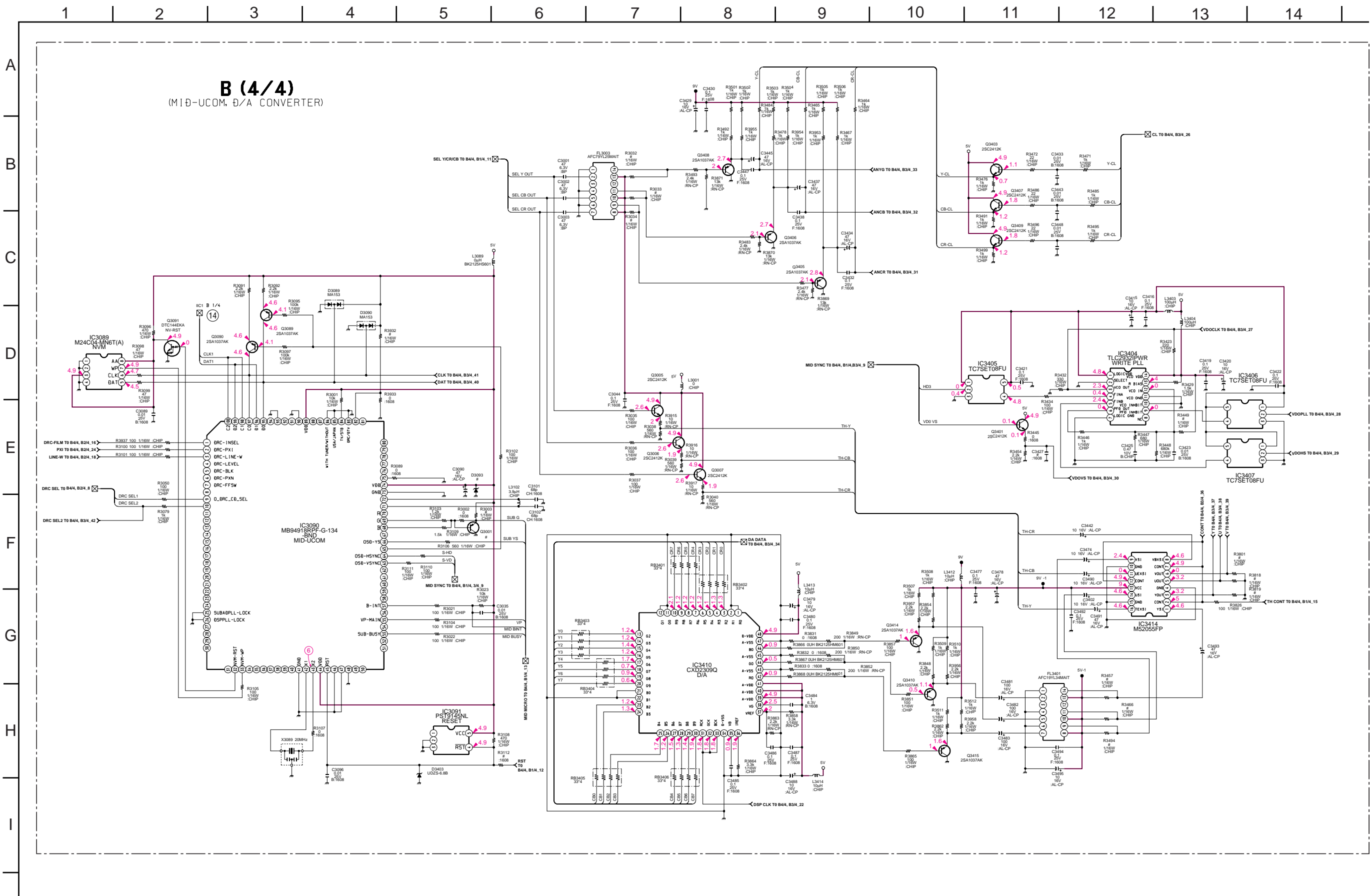


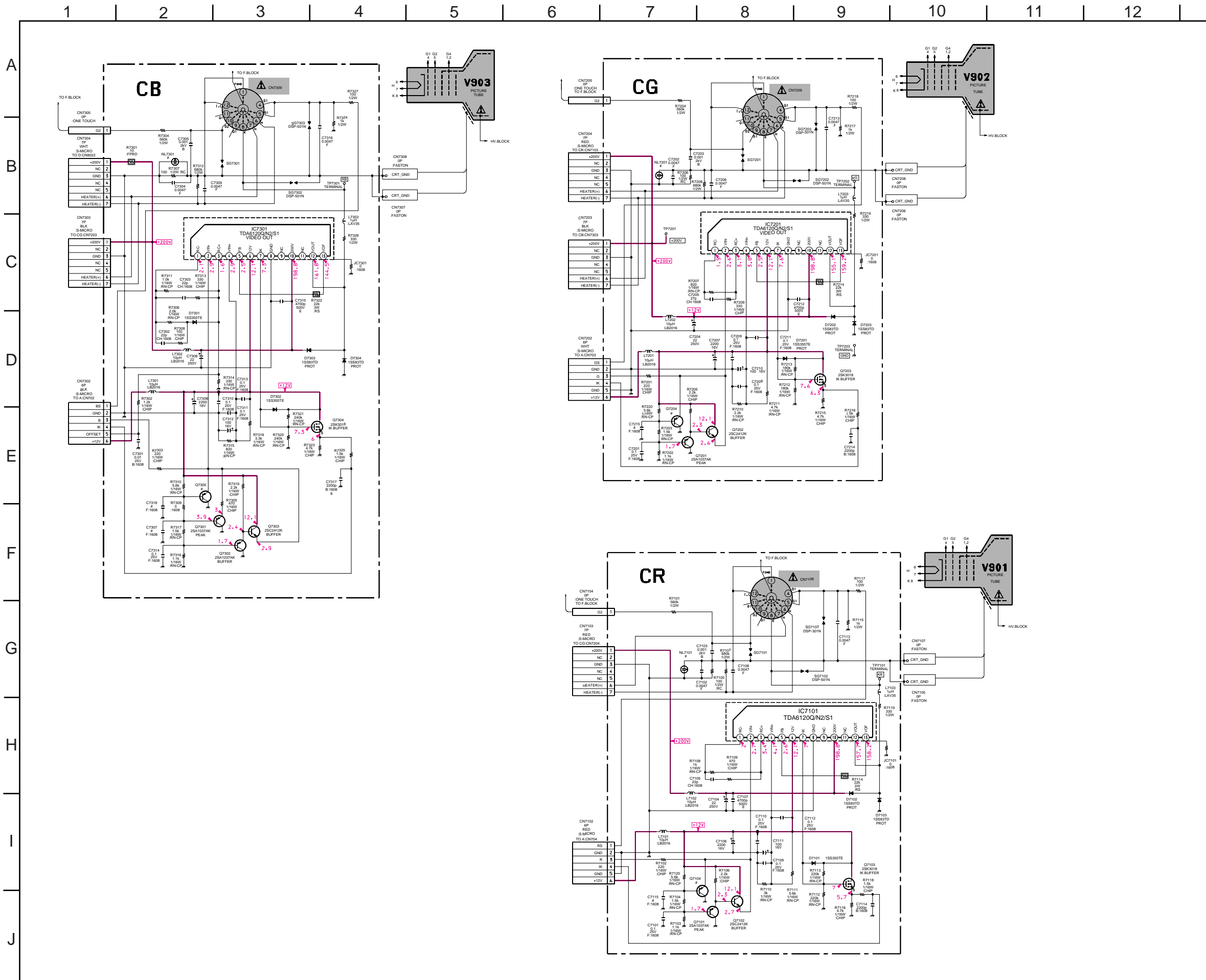


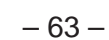
B (1/4)
(A/D CONVERTER)



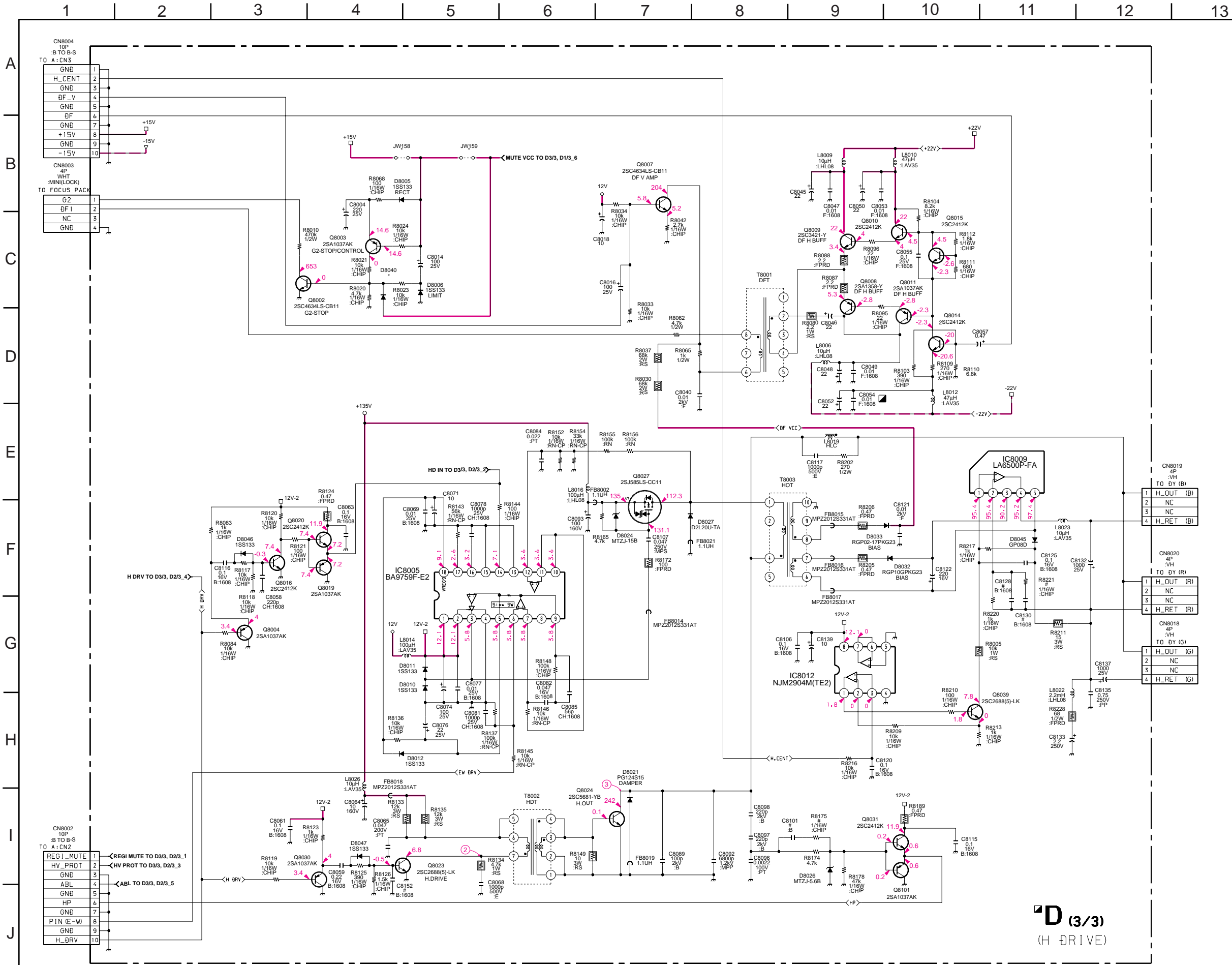








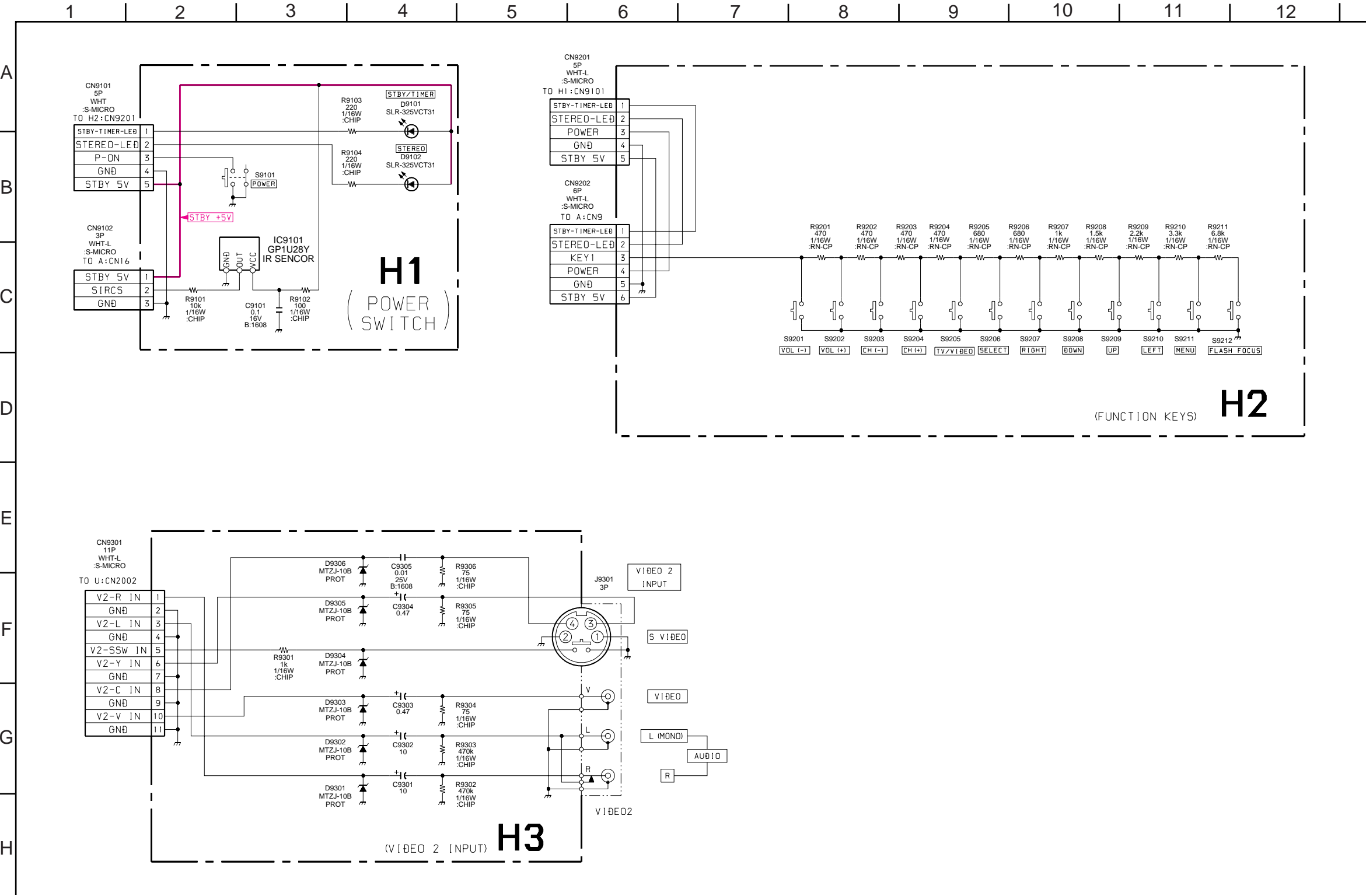


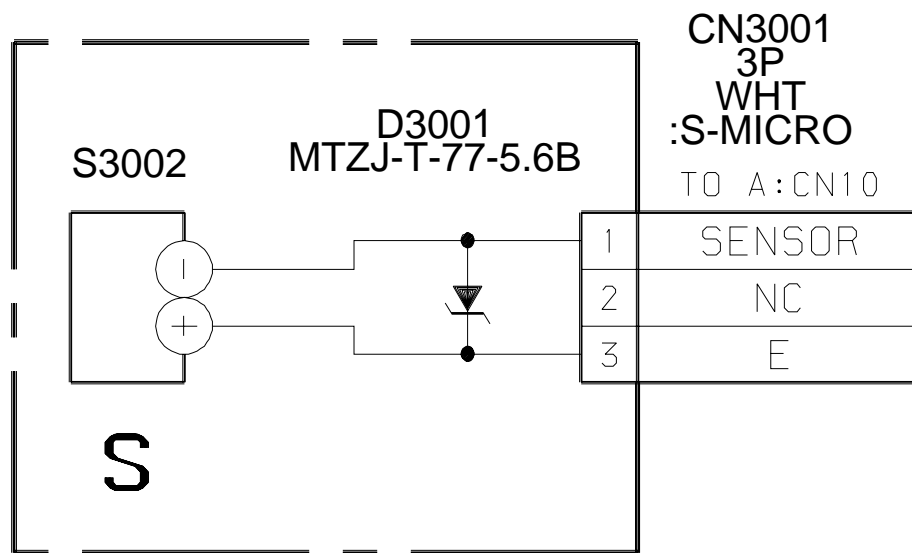


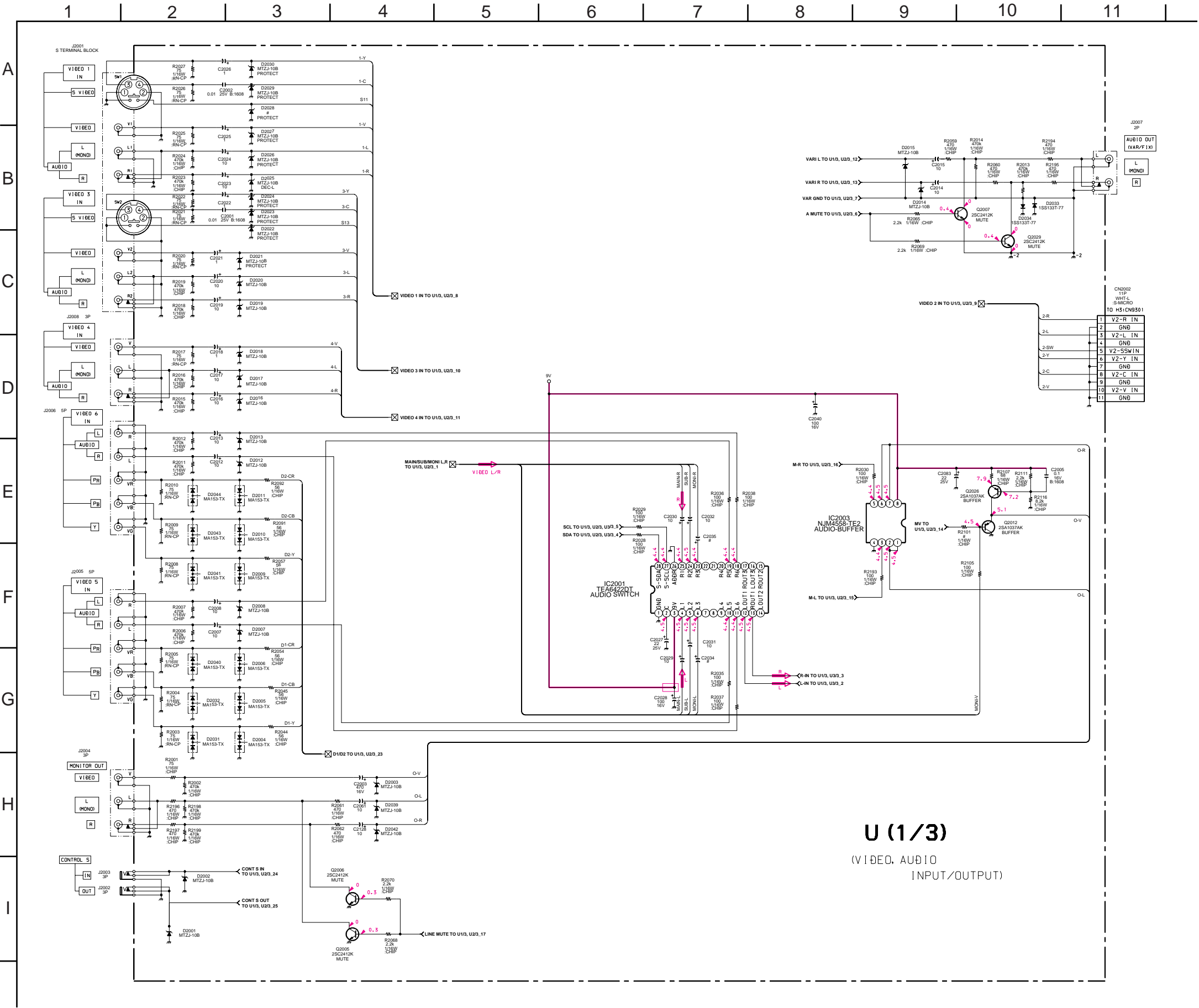
D (3/3)
(H DRIVE)

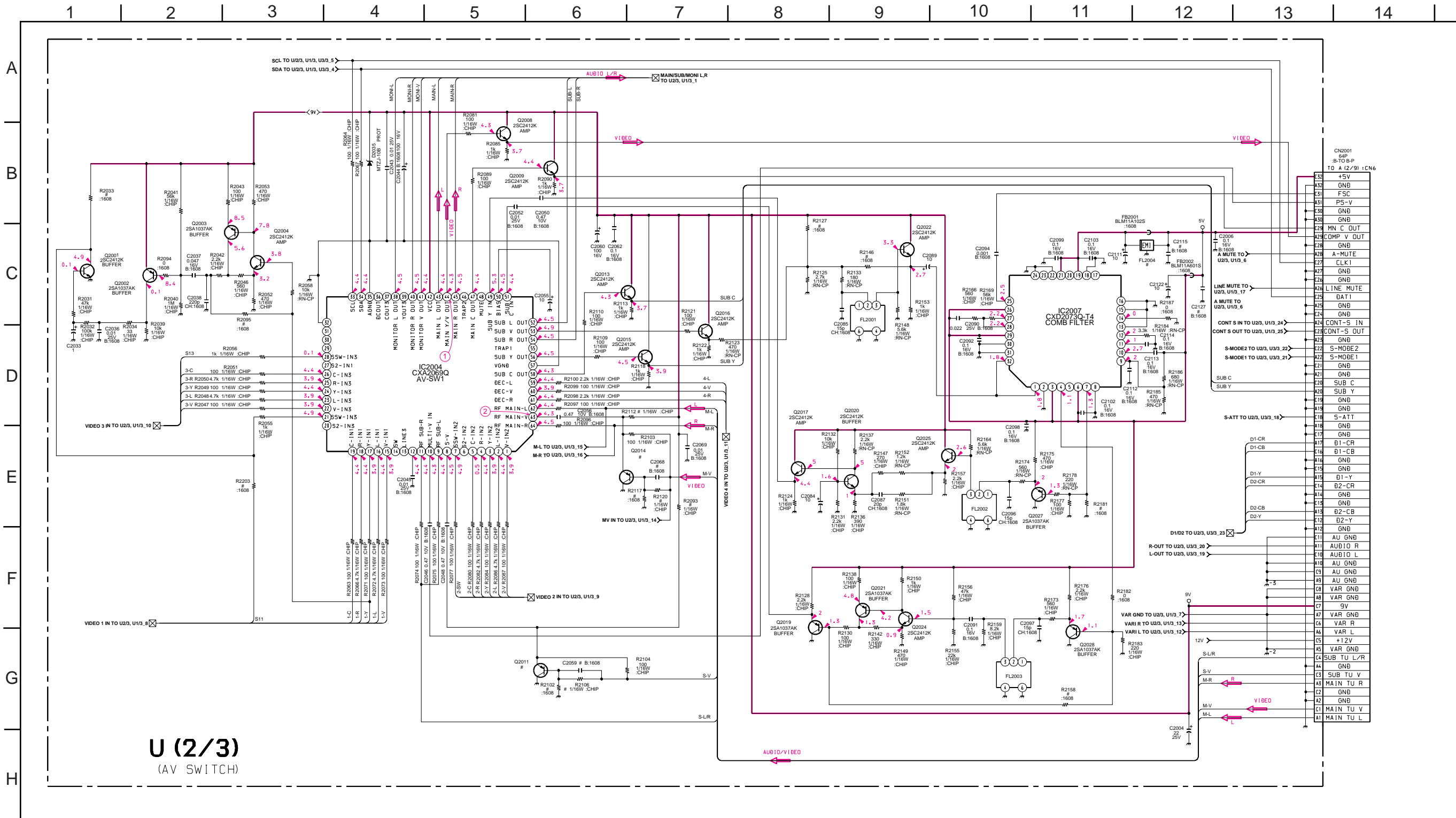


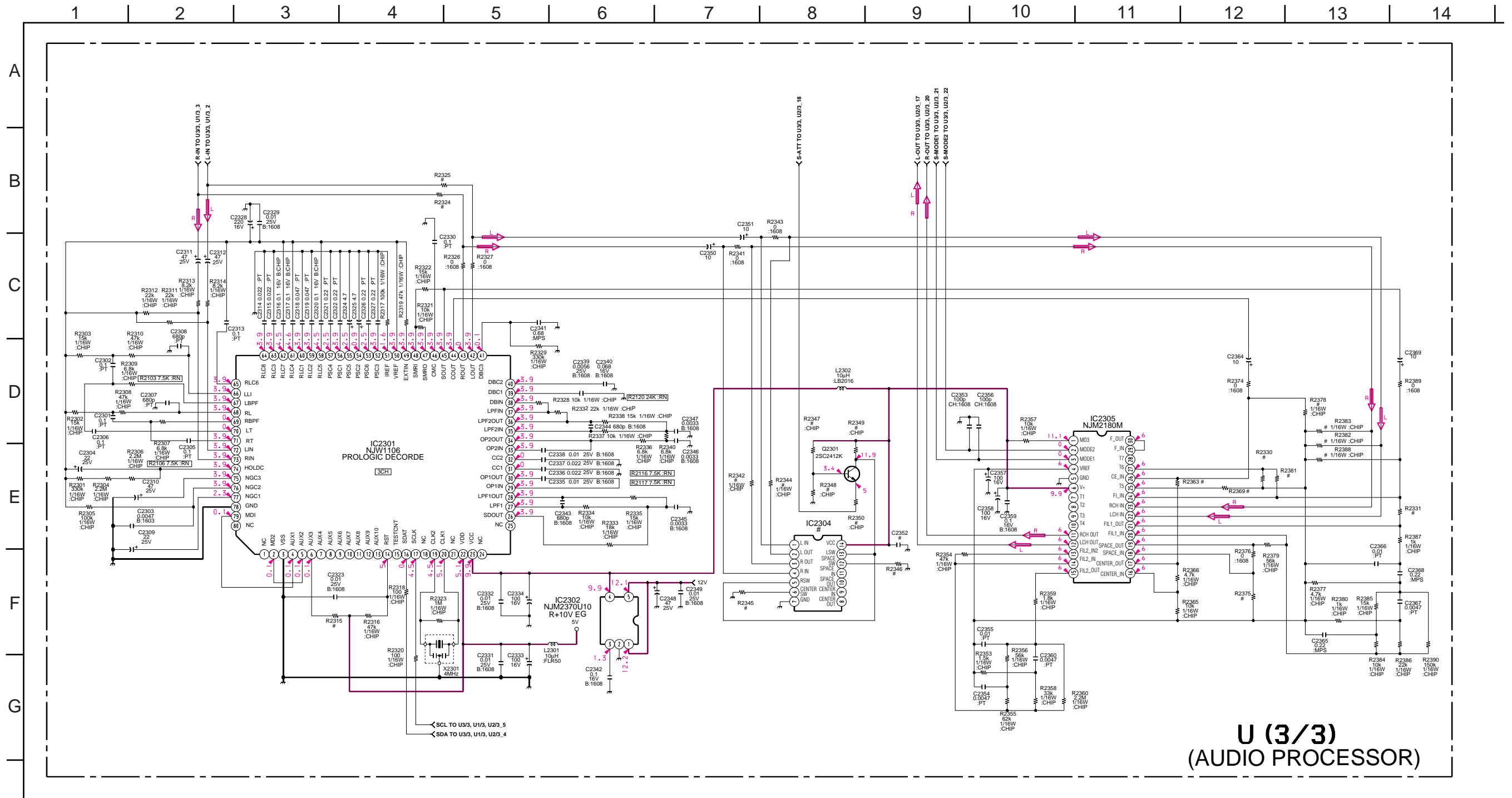


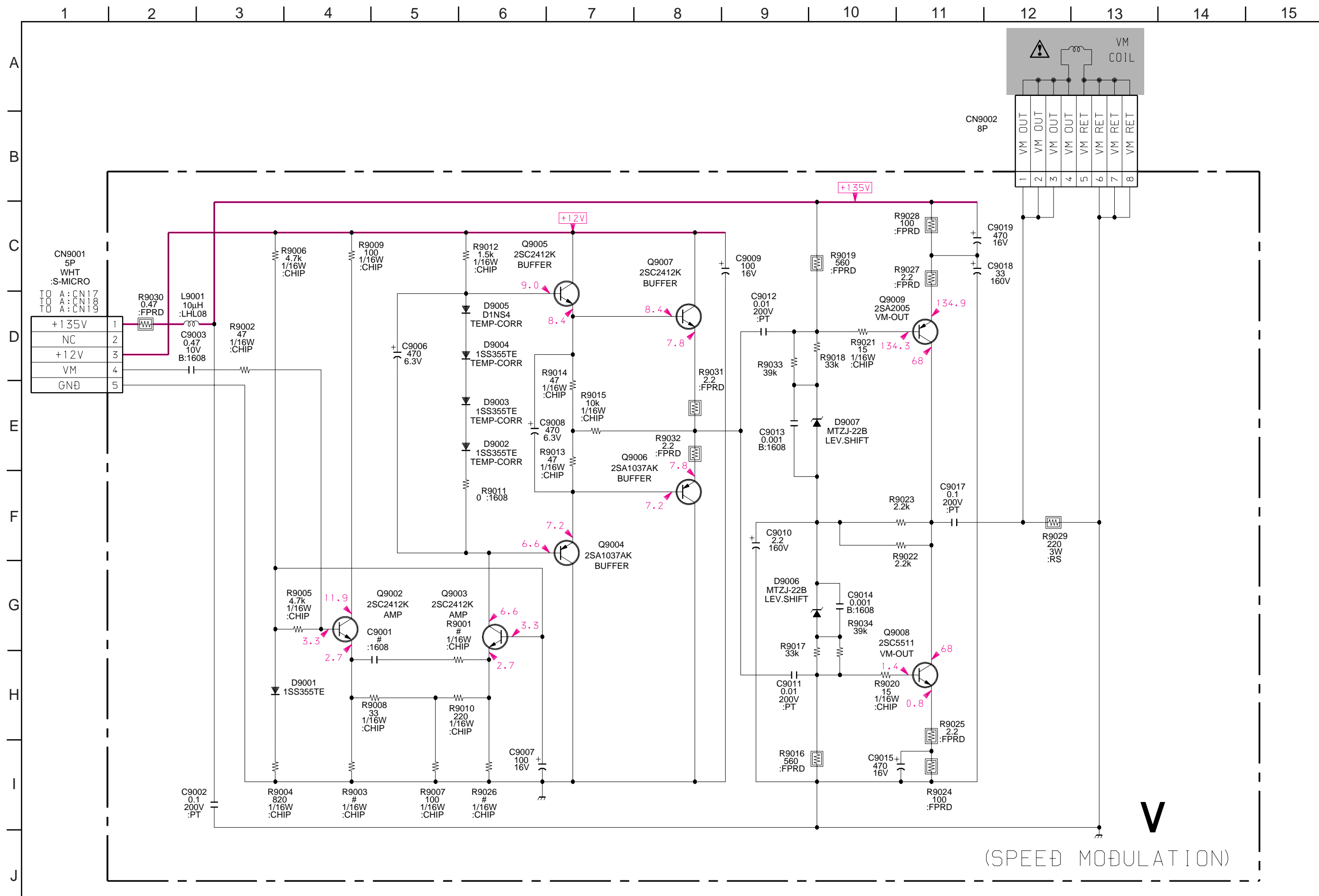










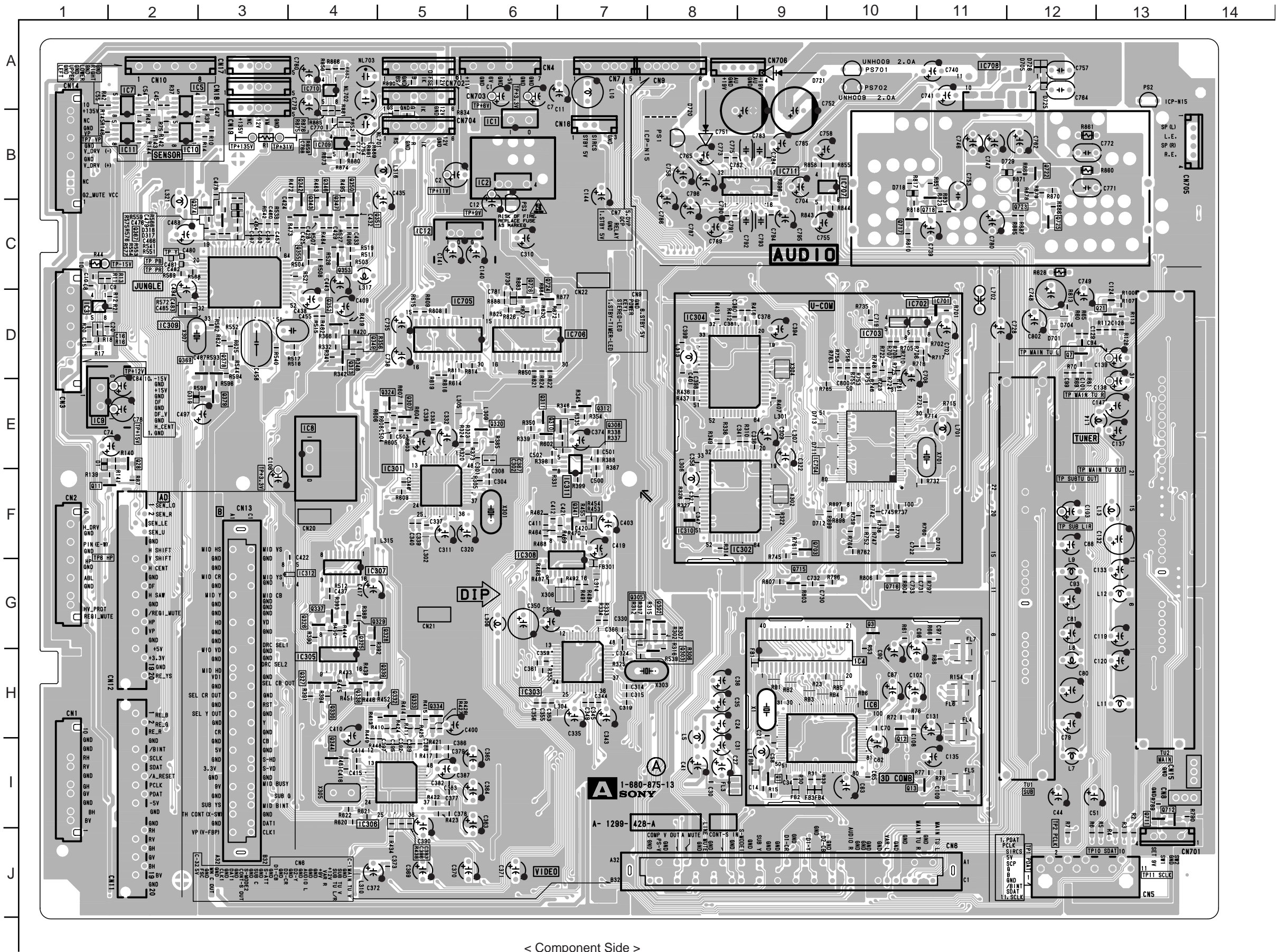


A [TUNER, VIDEO, AUDIO, SYSTEM CONTROL]

- A Board -

A BOARD

DIODE		*	TRANSISTOR *	
D1	E-2	③	Q1	I-9 ②
D317	C-3	③	Q3	G-10 ②
D318	C-3	③	Q7	D-12 ②
D319	E-2	③	Q11	F-1 ②
D701	D-12	⑨	Q12	H-10 ②
D704	D-12	⑨	Q13	I-11 ②
D705	A-12	③	Q21	D-13 ②
D710	F-11	⑨	Q302	G-8 ②
D711	E-9	⑨	Q303	H-8 ②
D712	F-9	⑨	Q305	G-7 ②
D713	E-9	⑨	Q307	E-5 ②
D718	B-10	③	Q308	E-7 ②
D720	B-8	③	Q310	E-6 ②
D721	A-9	③	Q311	E-6 ②
D725	A-12	③	Q312	E-7 ②
D726	A-12	③	Q313	D-4 ②
D729	B-11	③	Q320	E-6 ②
D730	D-6	③	Q324	E-5 ②
IC			Q325	G-4 ②
IC1	B-6		Q326	G-4 ②
IC2	B-6		Q327	H-4 ②
IC3	D-1		Q328	G-4 ②
IC4	H-9		Q329	G-4 ②
IC5	A-2		Q330	H-4 ②
IC6	H-9		Q332	H-5 ②
IC7	A-2		Q333	H-5 ②
IC8	E-4		Q334	H-5 ②
IC9	E-1		Q337	G-4 ②
IC10	B-2		Q338	H-4 ②
IC11	B-2		Q339	H-4 ②
IC12	C-5		Q341	F-7 ②
IC301	F-5		Q343	C-4 ②
IC302	F-8		Q344	I-4 ②
IC303	H-7		Q347	C-4 ②
IC304	D-8		Q349	D-4 ②
IC305	H-4		Q351	C-4 ②
IC306	I-5		Q352	D-4 ②
IC307	G-4		Q353	C-4 ②
IC308	D-3		Q355	C-4 ②
IC309	C-3		Q367	C-3 ②
IC310	F-8		Q369	D-2 ②
IC311	F-7		Q374	C-3 ②
IC312	G-4		Q378	D-2 ②
IC701	D-11		Q379	E-3 ②
IC702	D-10		Q703	F-9 ②
IC703	D-10		Q712	I-13 ②
IC704	F-10		Q713	I-13 ②
IC705	D-5		Q715	G-9 ②
IC706	D-6		Q716	G-10 ②
IC707	B-10		Q717	C-10 ②
IC708	A-11		Q718	B-11 ②
IC709	B-4		Q722	B-12 ②
IC710	A-4		Q723	B-12 ②
IC711	B-9		Q724	D-6 ②
			Q725	C-12 ②
			Q726	D-6 ②

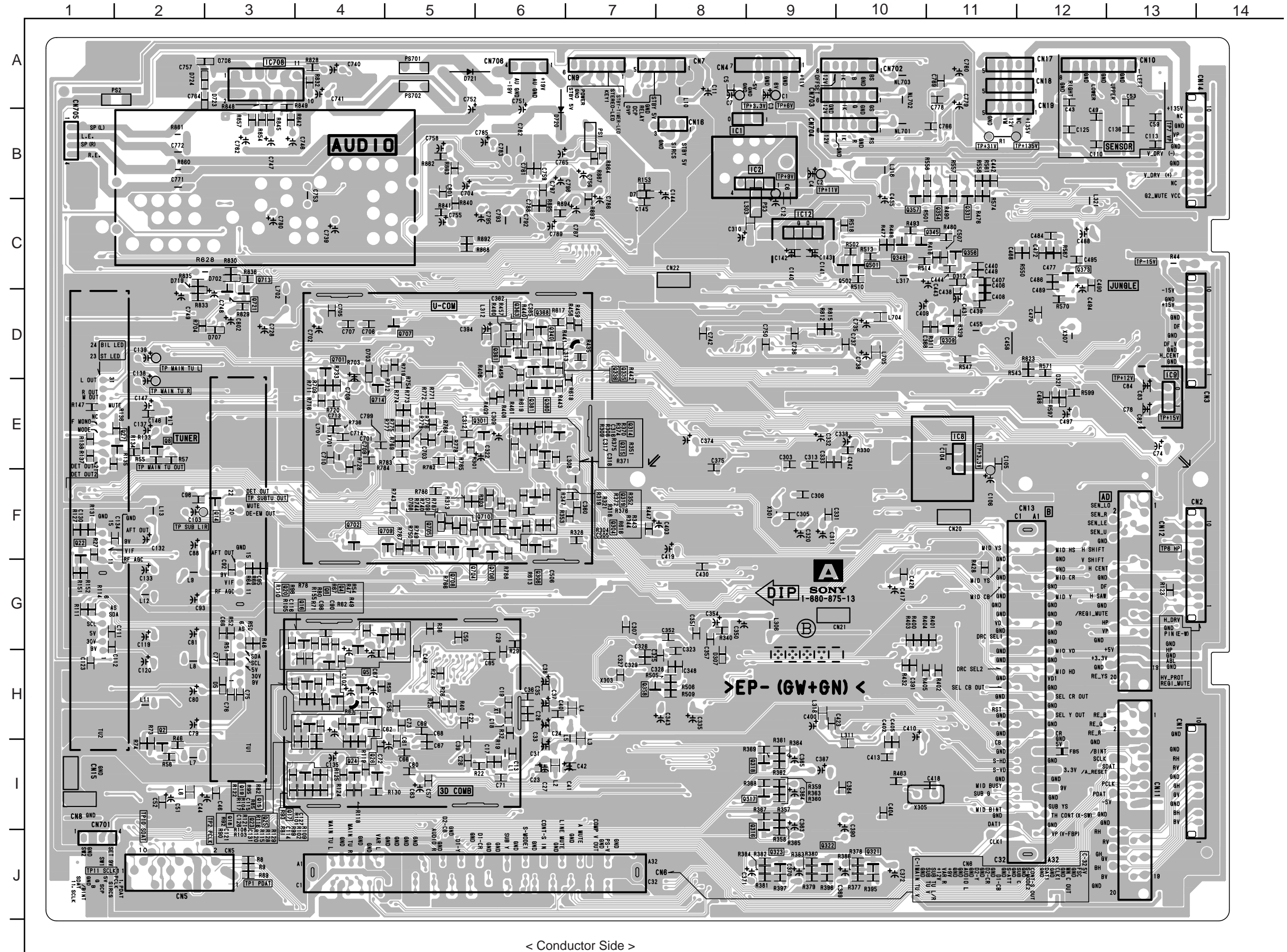


< Component Side >

– A Board –

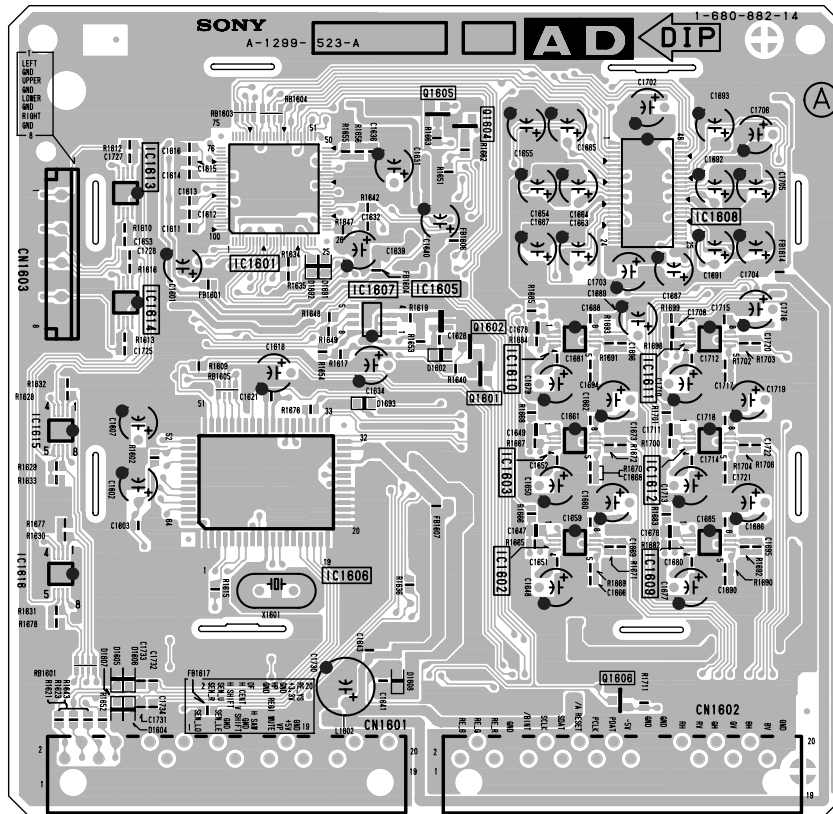
A BOARD

DIODE		*	Q27	E-1	
D5	H-3	③	Q28	I-4	①
D7	C-7	③	Q301	E-6	①
D307	H-8	③	Q304	F-6	①
D312	C-11	③	Q306	F-6	①
D321	E-12	③	Q309	D-11	①
D702	C-3	③	Q314	E-6	①
D703	E-4	③	Q315	E-6	①
D706	A-3	③	Q316	J-9	①
D708	F-5	③	Q317	I-9	①
D709	F-5	③	Q318	I-9	①
D719	D-2	③	Q319	F-6	①
D720	B-6		Q321	J-10	①
D721	A-5		Q322	J-10	①
D723	A-3	③	Q323	J-9	①
D724	A-3	③	Q331	C-11	①
IC			Q335	D-6	①
			Q336	D-6	①
IC1	B-8		Q340	D-6	①
IC2	B-9		Q345	C-11	①
IC8	E-11		Q348	C-10	①
IC9	E-13		Q354	C-11	①
IC12	C-9		Q356	C-11	①
IC708	A-3		Q357	C-10	①
TRANSISTOR *			Q358	H-8	①
Q2	I-2	①	Q361	D-6	①
Q4	G-4	①	Q363	D-6	①
Q5	H-4	①	Q368	D-6	①
Q6	G-4	①	Q373	C-12	①
Q8	E-2	①	Q380	E-6	①
Q14	F-3	①	Q381	E-6	①
Q15	H-4	①	Q501	C-10	①
Q16	H-4	①	Q502	C-10	①
Q17	I-4	①	Q701	D-4	①
Q18	H-4	①	Q702	F-4	①
Q19	H-4	①	Q704	F-5	①
Q20	G-4	①	Q705	F-5	①
Q22	F-1	①	Q706	F-6	①
Q23	H-4	①	Q707	D-5	①
Q24	I-4	①	Q708	F-5	①
Q25	H-4	①	Q709	F-5	①
Q26	I-4	①	Q710	F-6	①
			Q714	D-4	①
			Q721	D-3	①

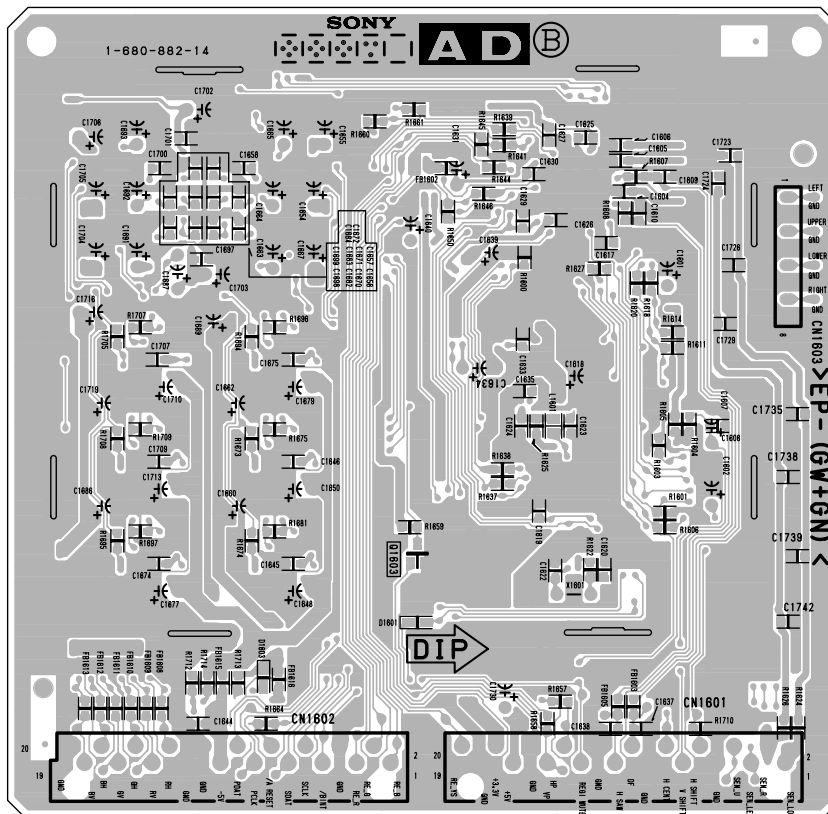


< Conductor Side >

– AD Board –



< Component Side >

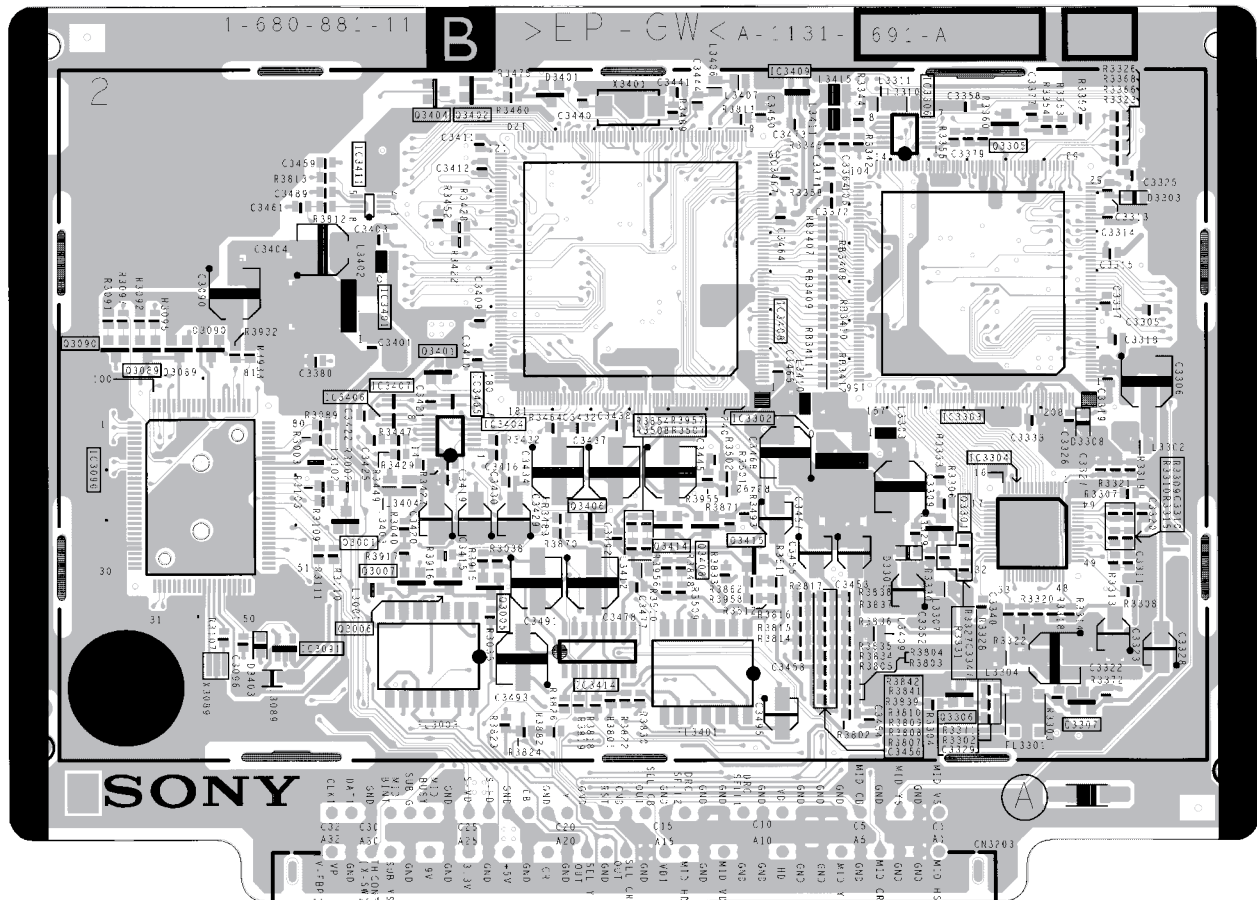


< Conductor Side >

B

[A/D CONVERTER, DRC, MULTI IMAGE DRIVER, MID-U CON, D/A CONVERTER]

– B Board –

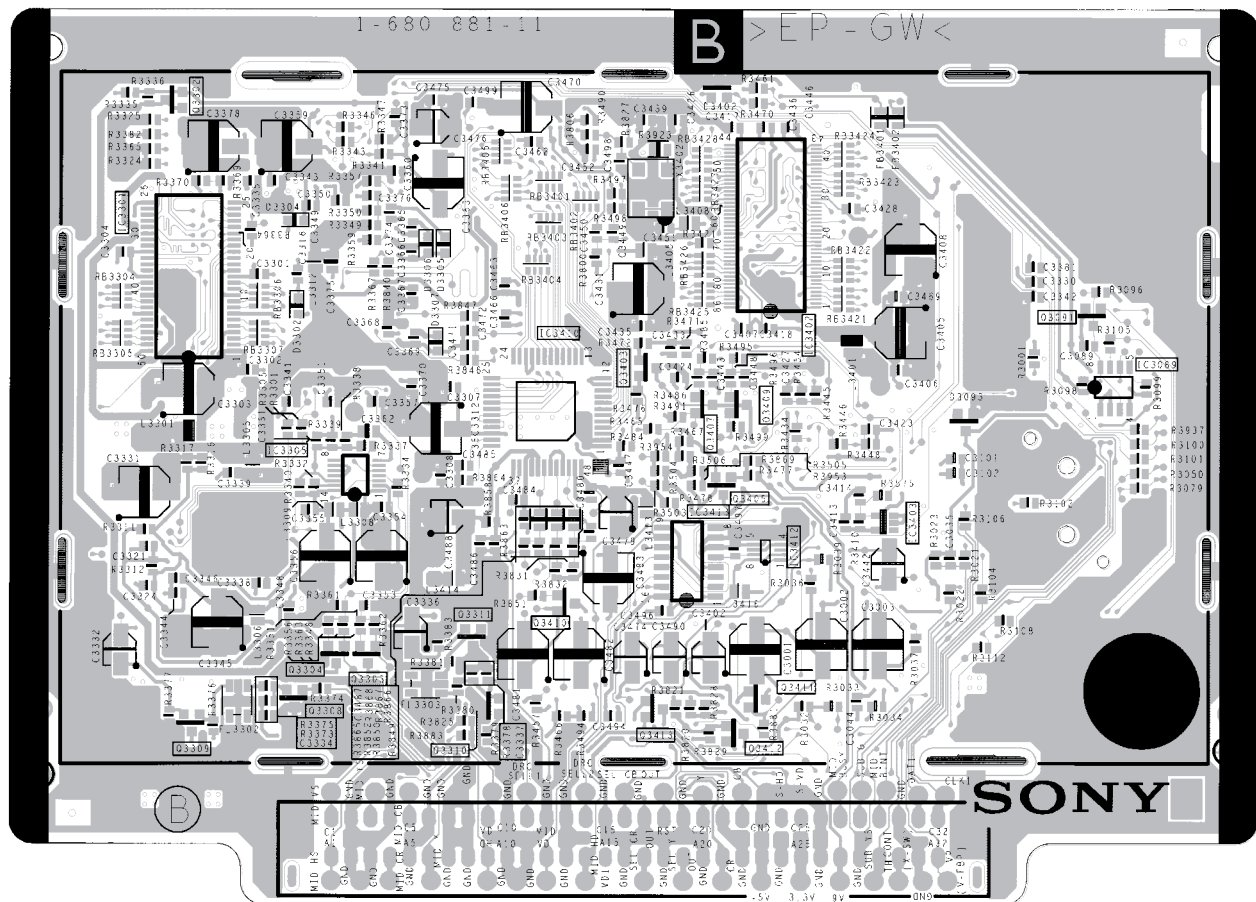


< Component Side >

B

[A/D CONVERTER, DRC, MULTI IMAGA DRIVER, MID-U CON, D/A CONVERTER]

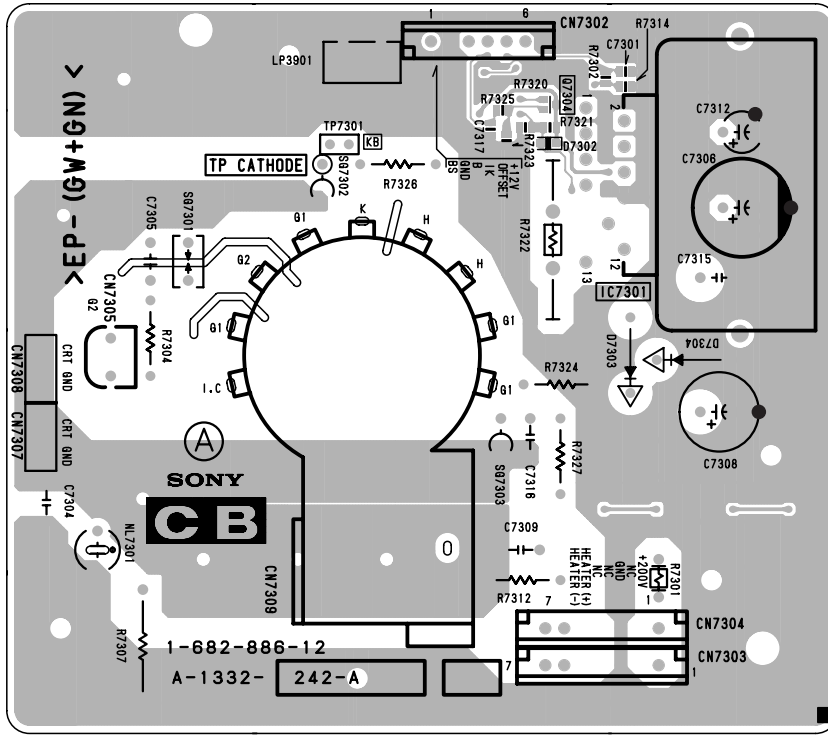
– B Board –



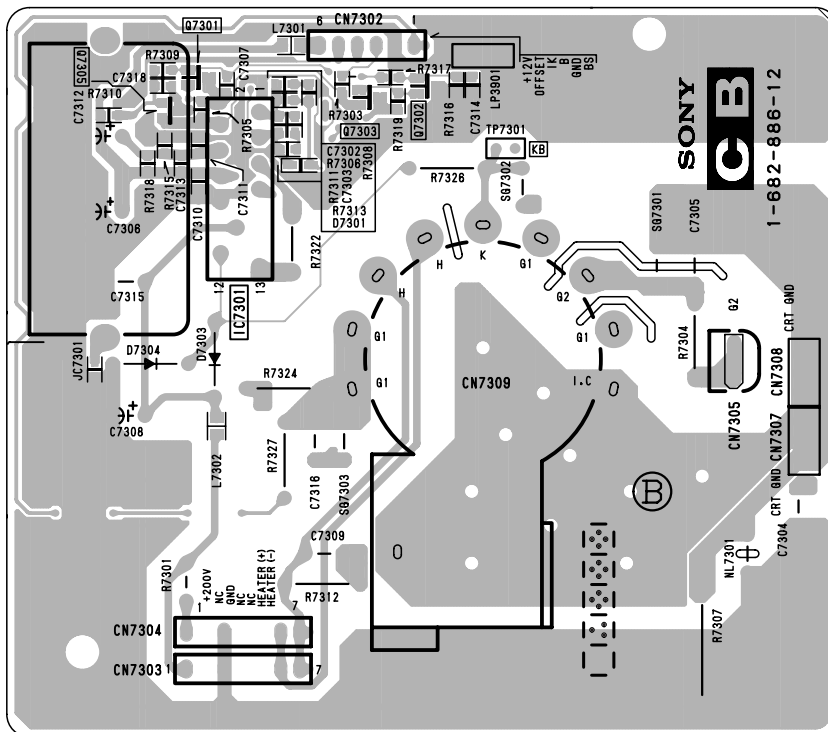
< Conductor Side >

CB [CRT I/F BLUE]

– CB Board –



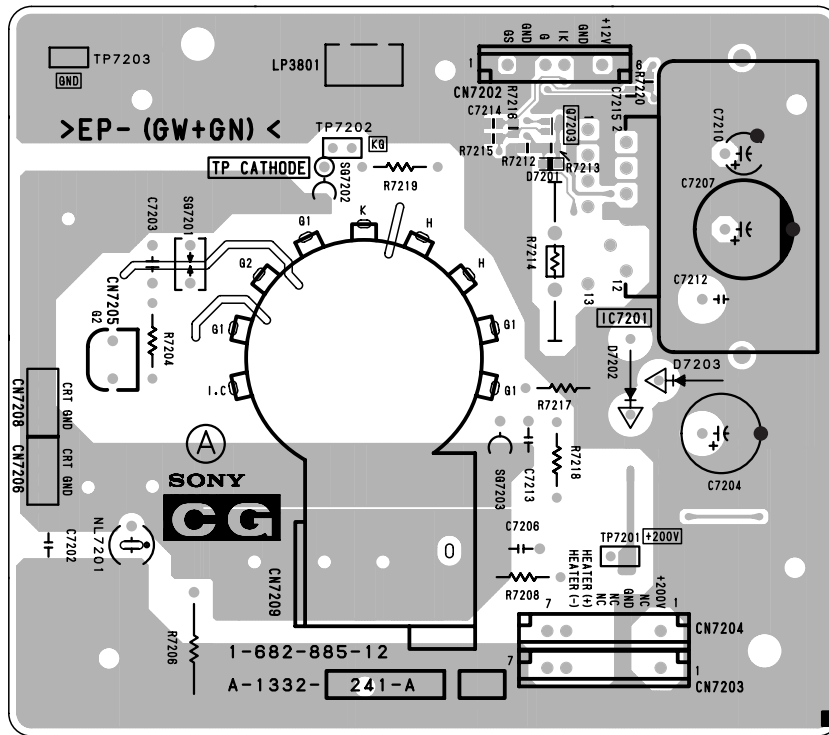
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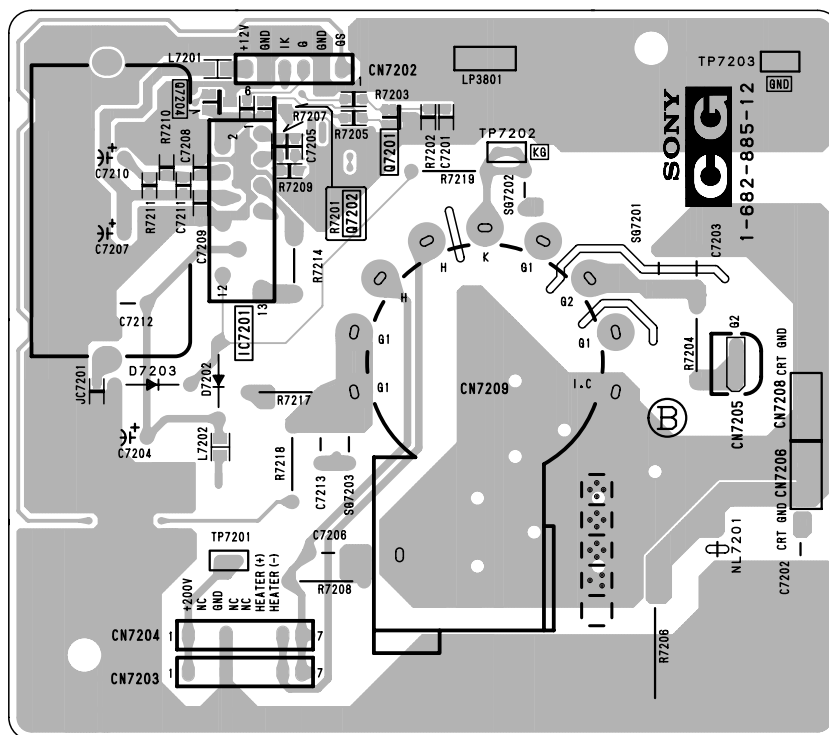
< Conductor Side >



– CG Board –



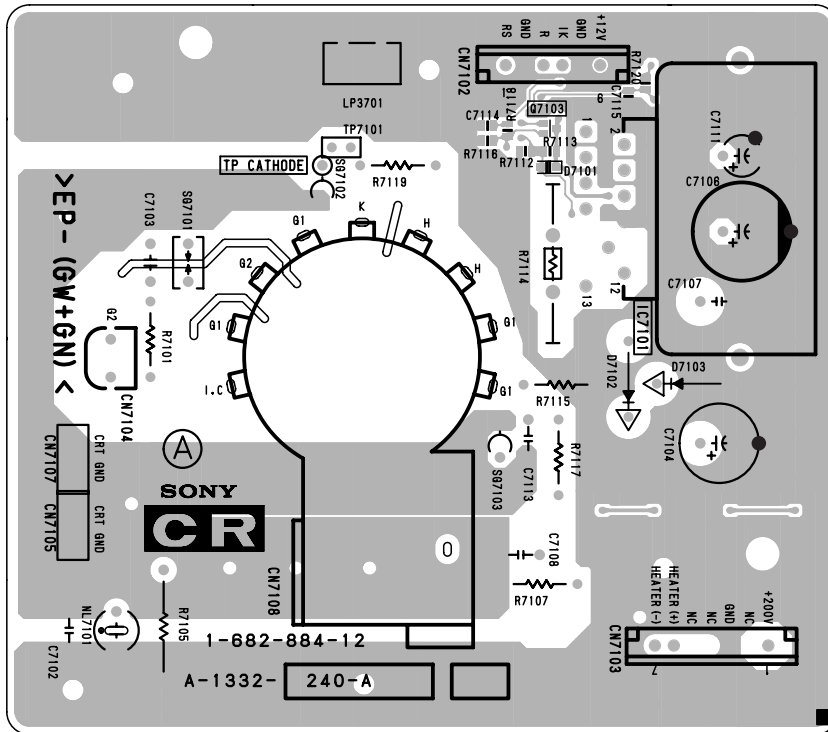
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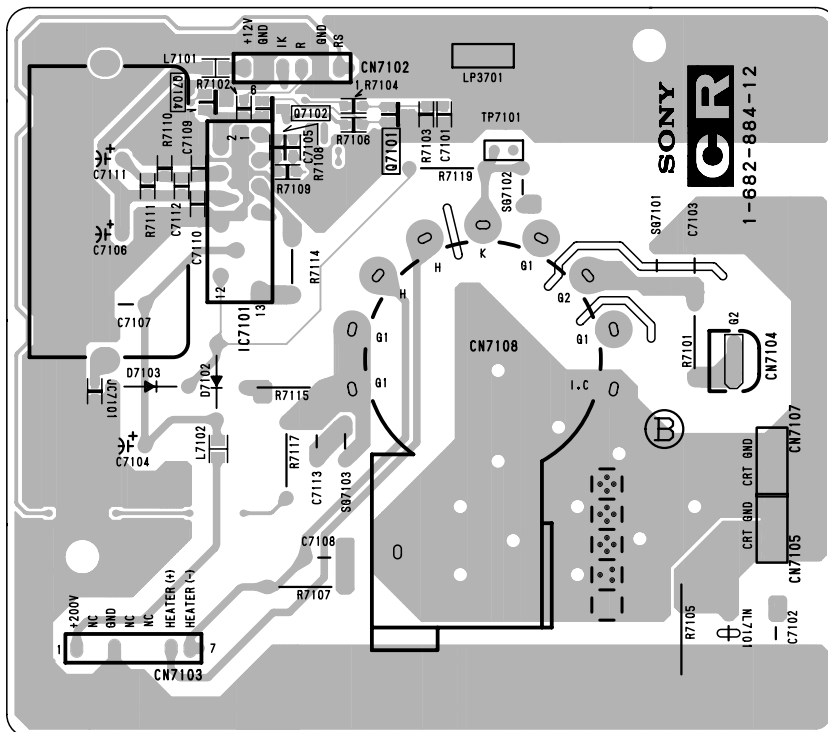
< Conductor Side >

CR [CRT I/F RED]

– CR Board –



< Component Side >



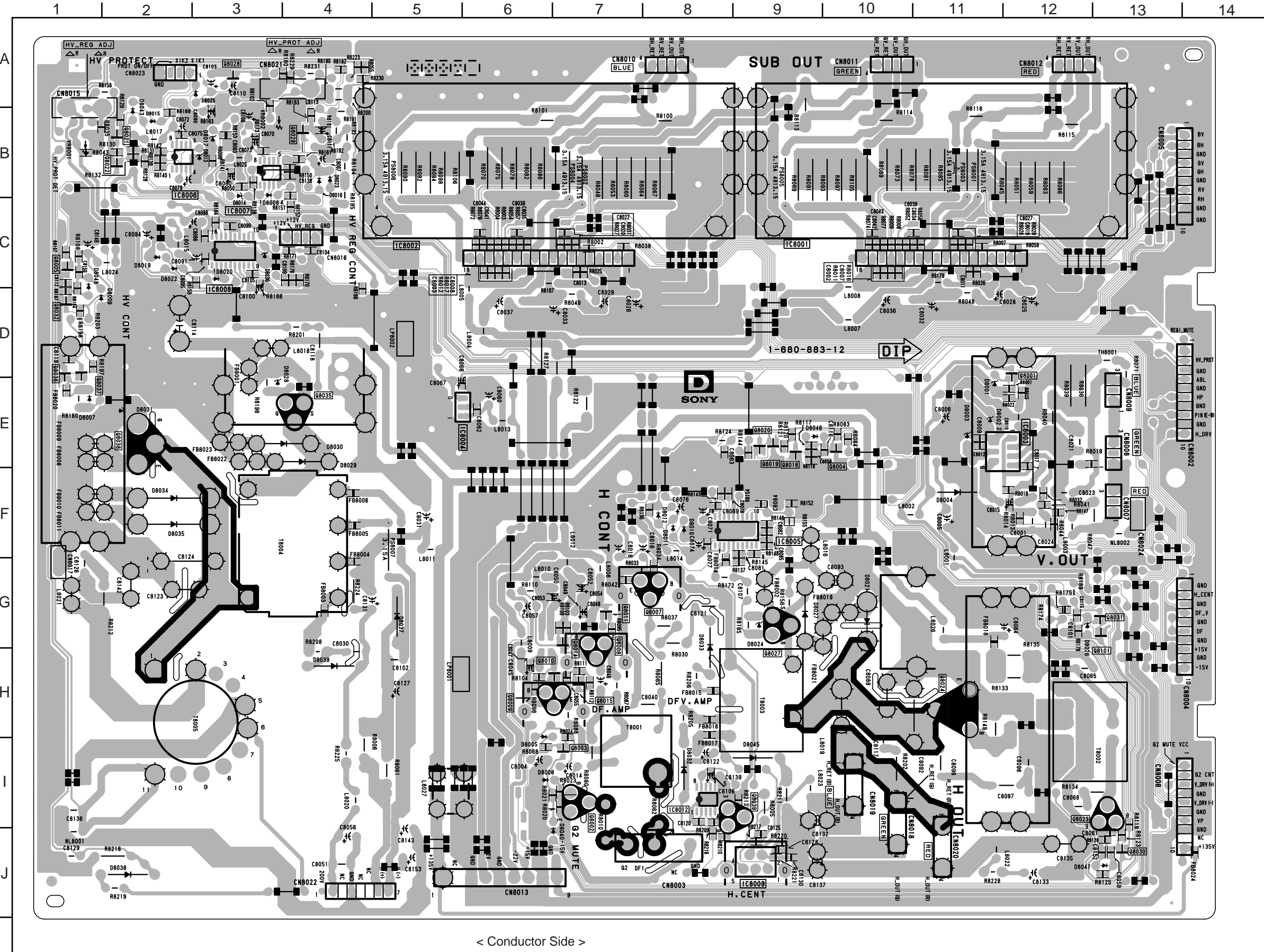
< Conductor Side >

D [HV DRIVE, POWER SUPPLY, H DRIVE]

– D Board –

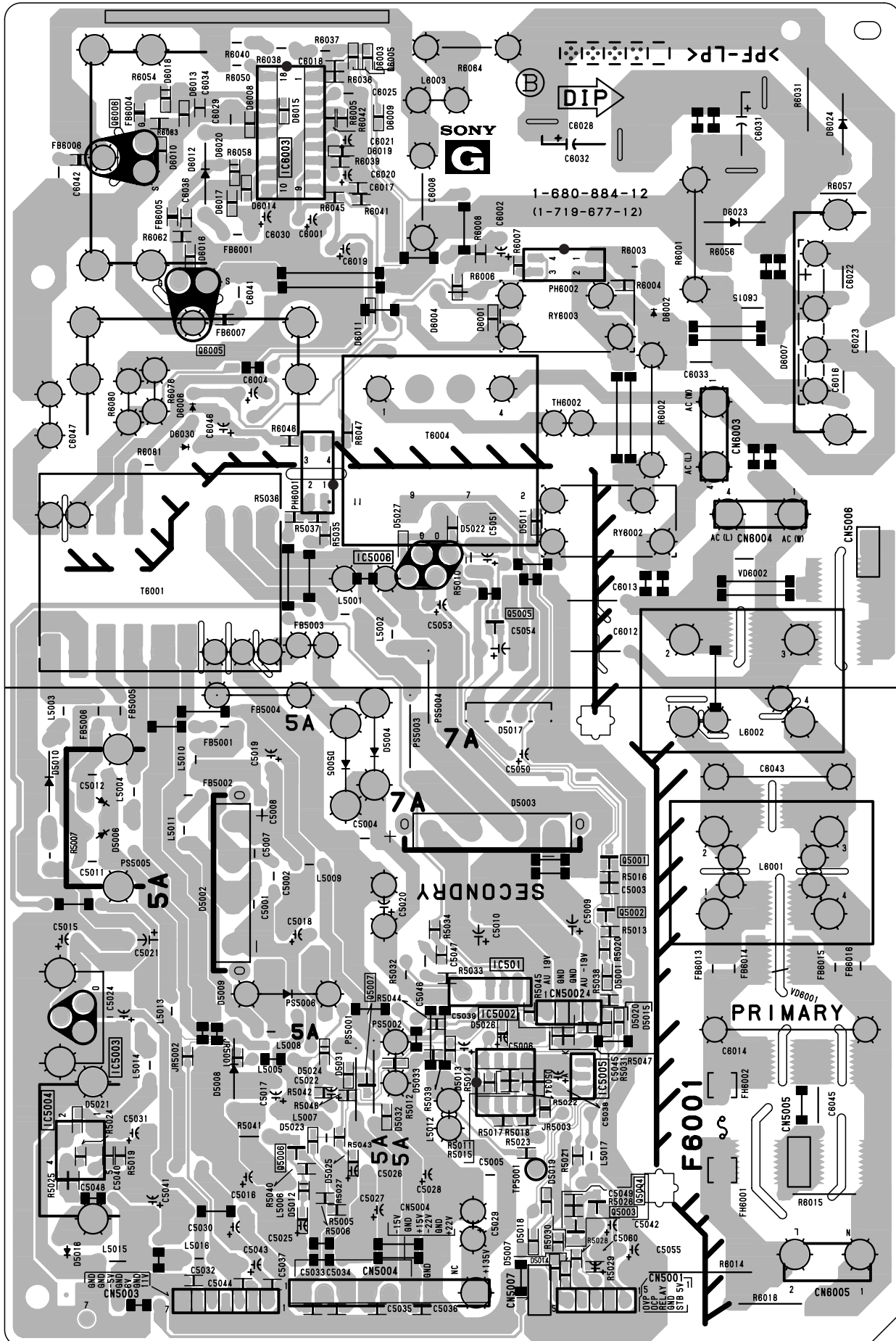
D BOARD

DIODE	*	TRANSISTOR	*
D8001	E-11	Q8001	E-12 ①
D8002	E-11	Q8002	I-7 ①
D8003	E-11	Q8003	I-7 ①
D8004	F-11	Q8004	E-10 ①
D8005	H-6	Q8005	C-1 ①
D8006	I-6	Q8007	G-7 ①
D8007	E-1	Q8008	H-7 ①
D8008	C-3	Q8009	H-6 ①
D8009	E-11	Q8010	H-7 ①
D8010	F-8	Q8011	G-7 ①
D8011	F-8	Q8014	G-7 ①
D8012	F-8	Q8015	H-7 ①
D8013	B-3	Q8016	E-9 ①
D8014	C-3	Q8019	E-9 ①
D8015	B-2	Q8020	E-9 ①
D8016	B-4	Q8021	B-2 ①
D8019	C-2	Q8022	B-2 ①
D8020	C-3	Q8023	I-13 ①
D8021	G-10	Q8024	H-11 ①
D8022	C-2	Q8027	G-9 ①
D8023	B-4	Q8028	A-3 ①
D8024	G-9	Q8029	B-4 ①
D8025	A-3	Q8030	J-13 ①
D8026	G-12	Q8031	G-13 ①
D8027	G-9	Q8032	D-1 ①
D8028	E-3	Q8035	I-4 ①
D8029	E-4	Q8036	E-1 ①
D8030	E-4	Q8037	E-1 ①
D8031	E-2	Q8038	E-2 ①
D8032	I-8	Q8039	I-9 ①
D8033	H-8	Q8101	G-13 ①
D8034	F-2		
D8035	F-2		
D8036	C-3		
D8037	G-5		
D8038	J-2		
D8039	H-4		
D8043	B-2		
D8045	I-9		
D8046	E-9		
D8047	J-13		
IC			
IC8001	C-11		
IC8002	C-6		
IC8003	E-12		
IC8004	E-5		
IC8005	F-9		
IC8006	B-2		
IC8007	B-3		
IC8008	C-3		
IC8009	J-9		
IC8012	I-8		



< Conductor Side >

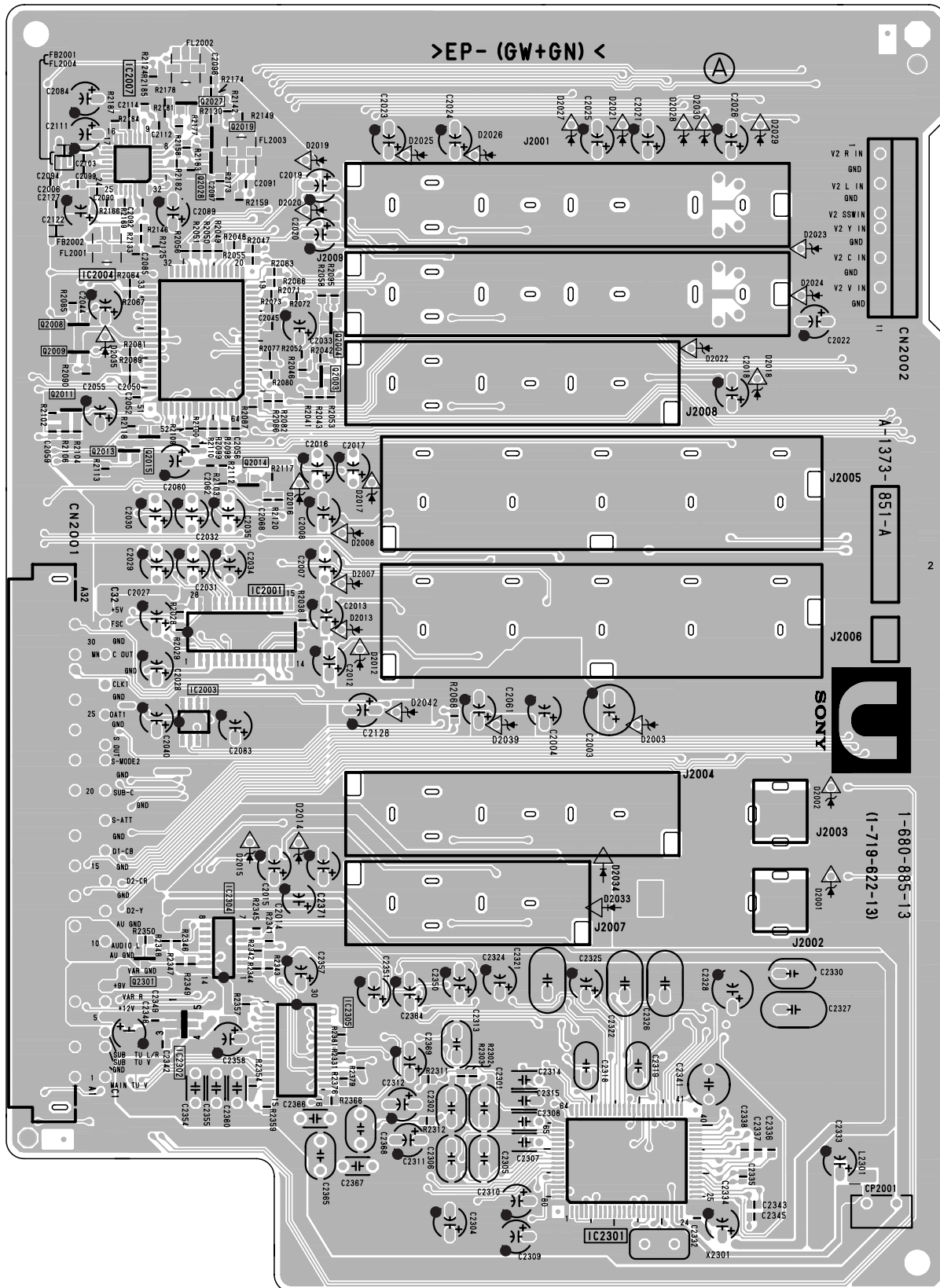
- G Board -



[VIDEO 2 INPUT]

[VIDEO, AUDIO INPUT/OUTPUT, AV SWITCH, AUDIO PROCESSOR]

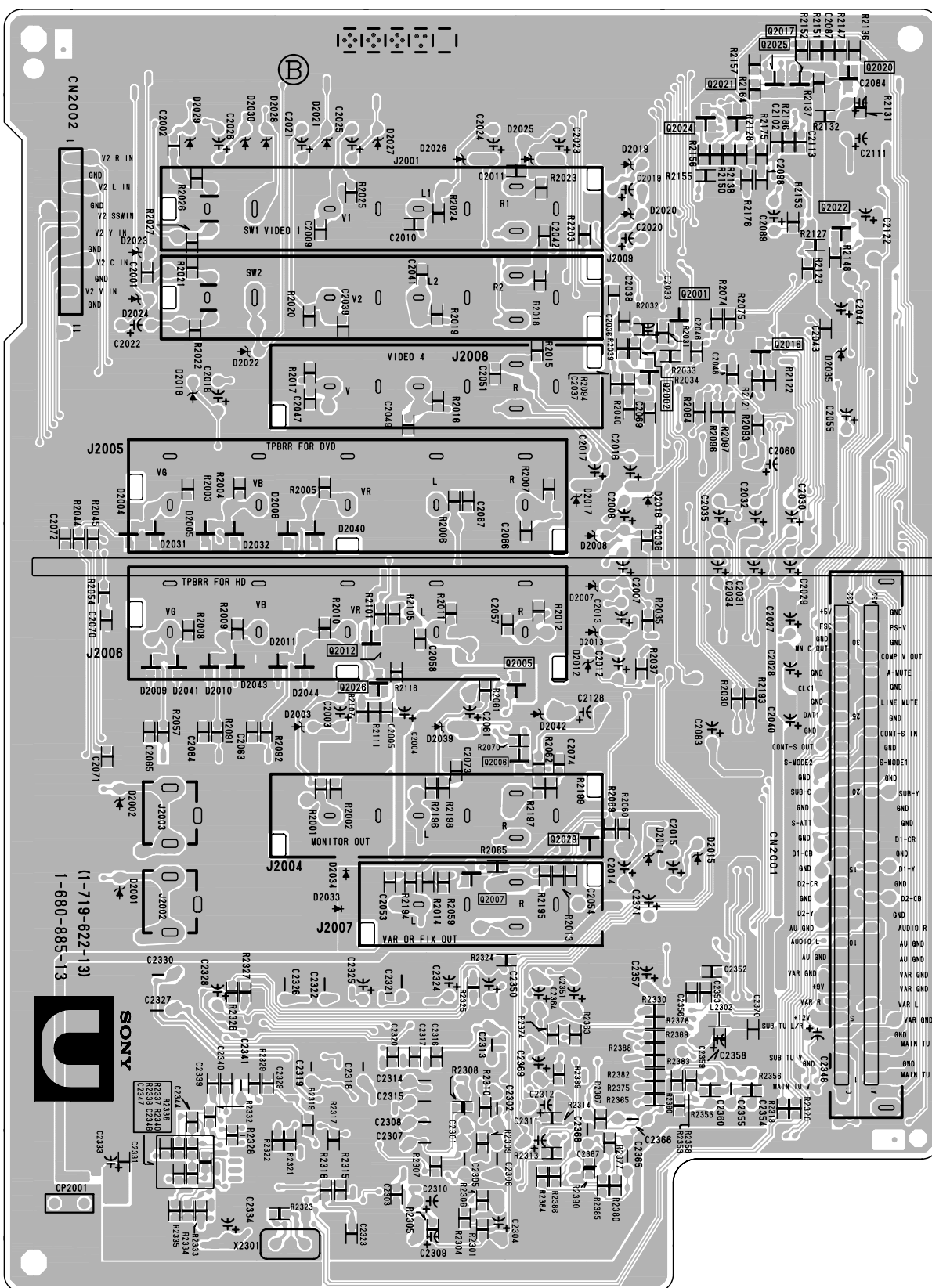
– U Board –



< Component Side >

[VIDEO, AUDIO INPUT/OUTPUT, AV SWITCH, AUDIO PROCESSOR]

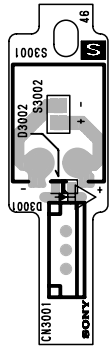
– U Board –



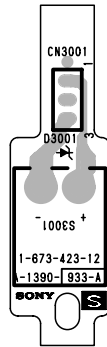
< Conductor Side >



– S Board –

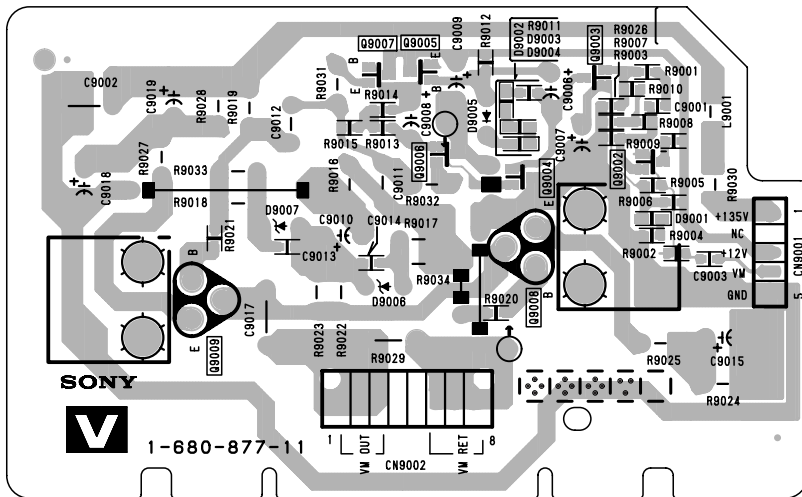


< Component Side >



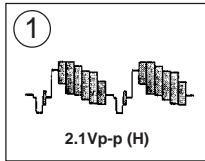
< Conductor Side >

– V Board –

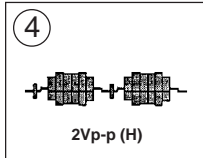
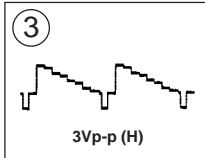
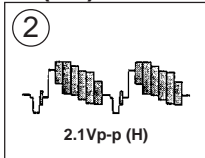


6-5. WAVEFORMS

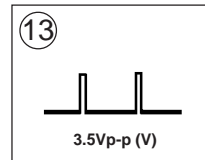
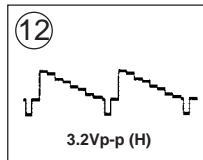
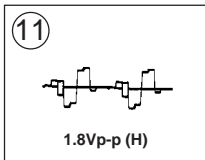
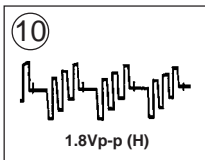
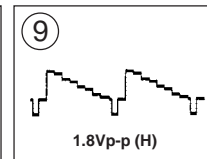
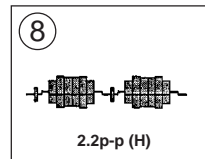
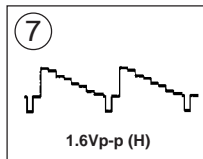
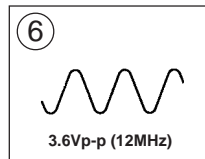
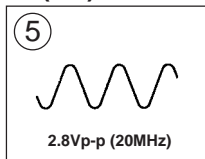
• A(1/9) BOARD WAVEFORMS



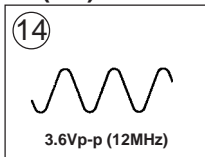
• A(2/9) BOARD WAVEFORMS



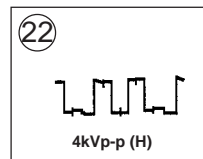
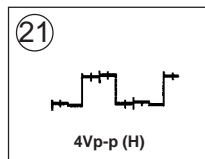
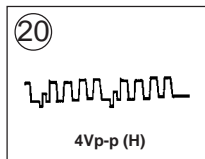
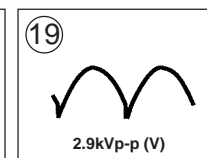
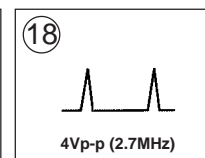
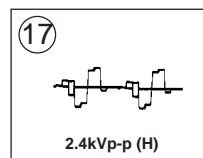
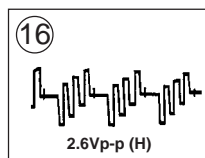
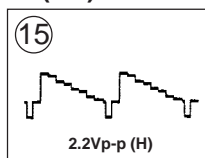
• A(3/9) BOARD WAVEFORMS



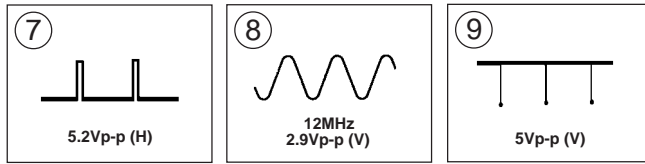
• A(4/9) BOARD WAVEFORMS



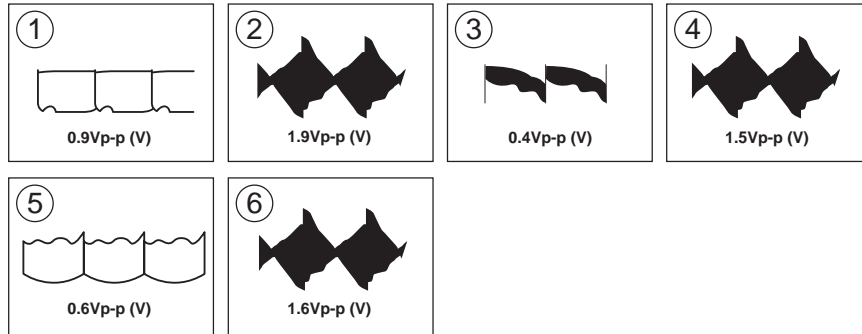
• A(5/9) BOARD WAVEFORMS



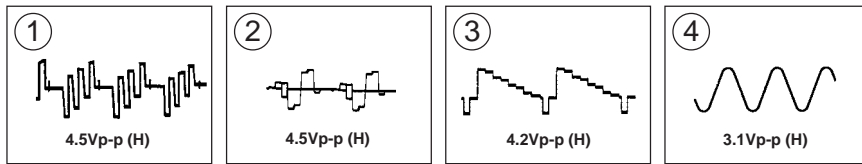
• AD(1/2) BOARD WAVEFORMS



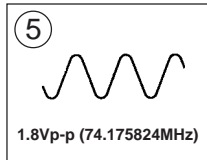
• AD(2/2) BOARD WAVEFORMS



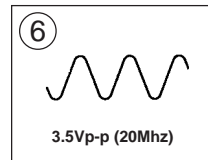
• B(1/4) BOARD WAVEFORMS



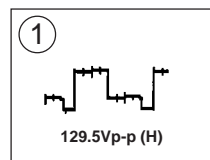
• B(3/4) BOARD WAVEFORMS



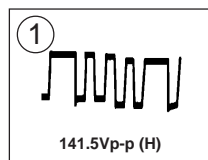
• B(4/4) BOARD WAVEFORMS



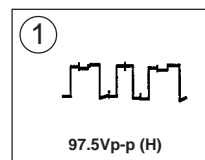
• CR BOARD WAVEFORM



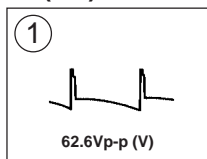
• CB BOARD WAVEFORM



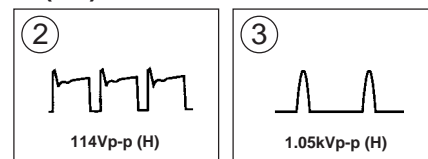
• CG BOARD WAVEFORMS



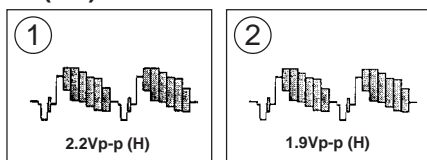
• D(1/3) BOARD WAVEFORMS



• D(3/3) BOARD WAVEFORMS

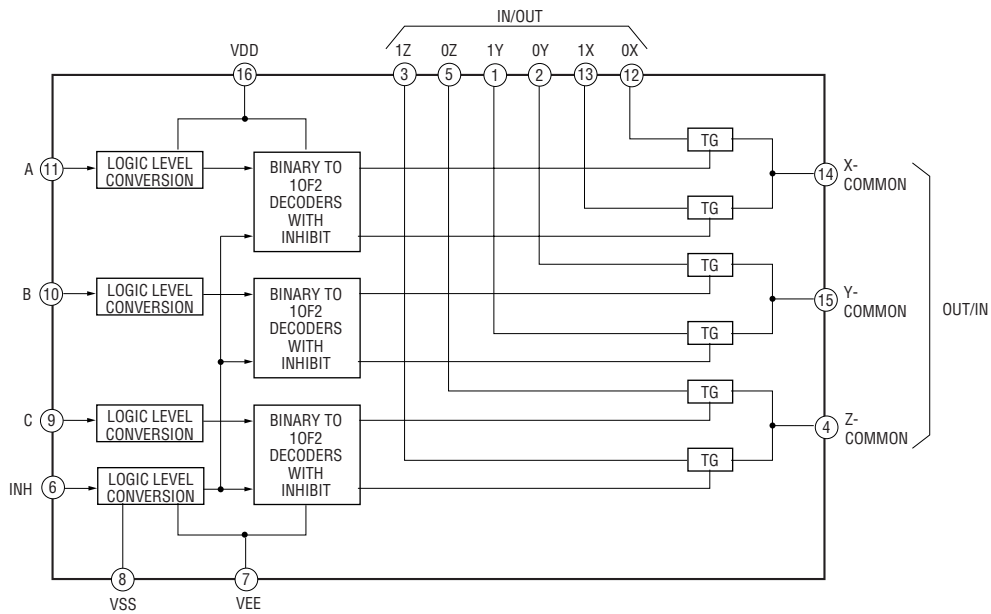


• U(2/3) BOARD WAVEFORMS

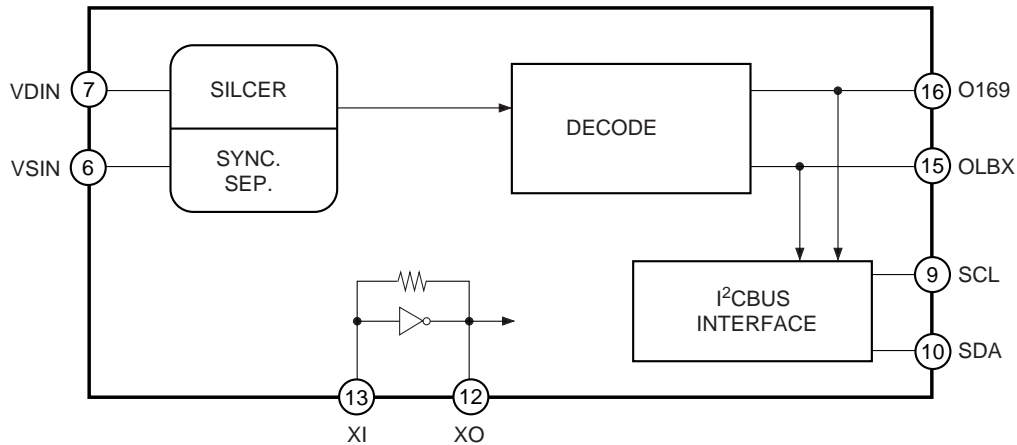


6-6. IC BLOCK DIAGRAMS

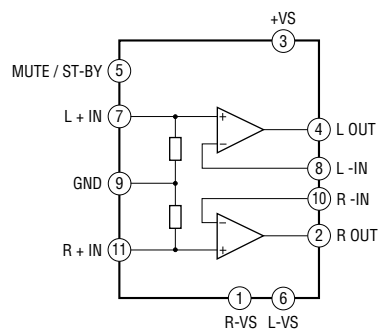
A BOARD : IC305, 307 SN74LV4053ANSR

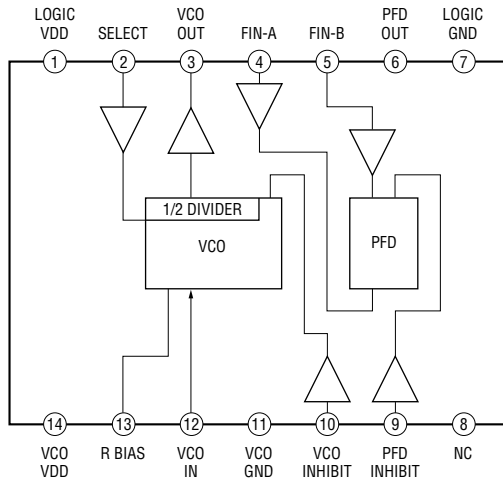


A BOARD : IC308 CXD2085M

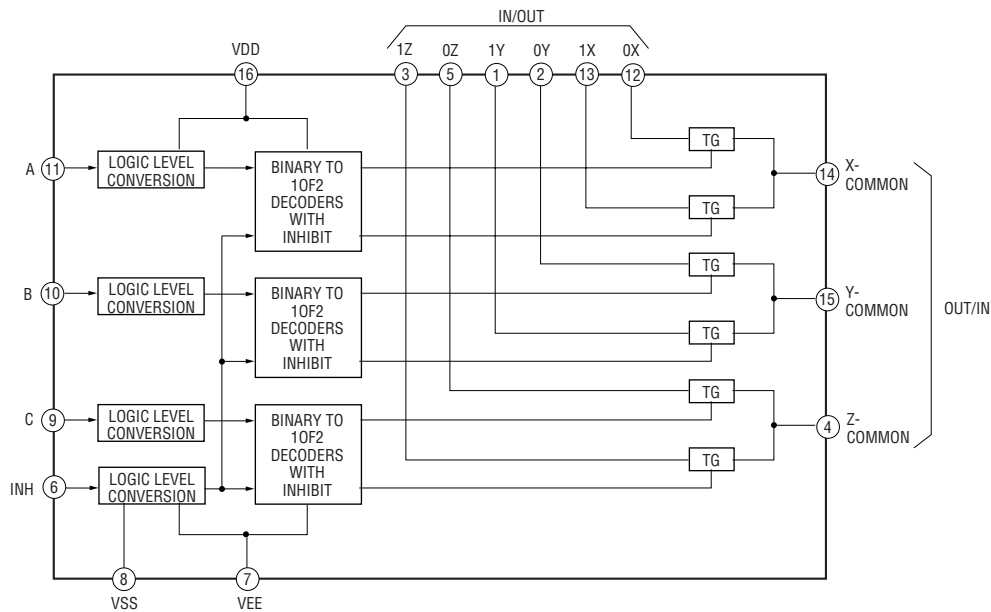


A BOARD : IC708 TDA7265

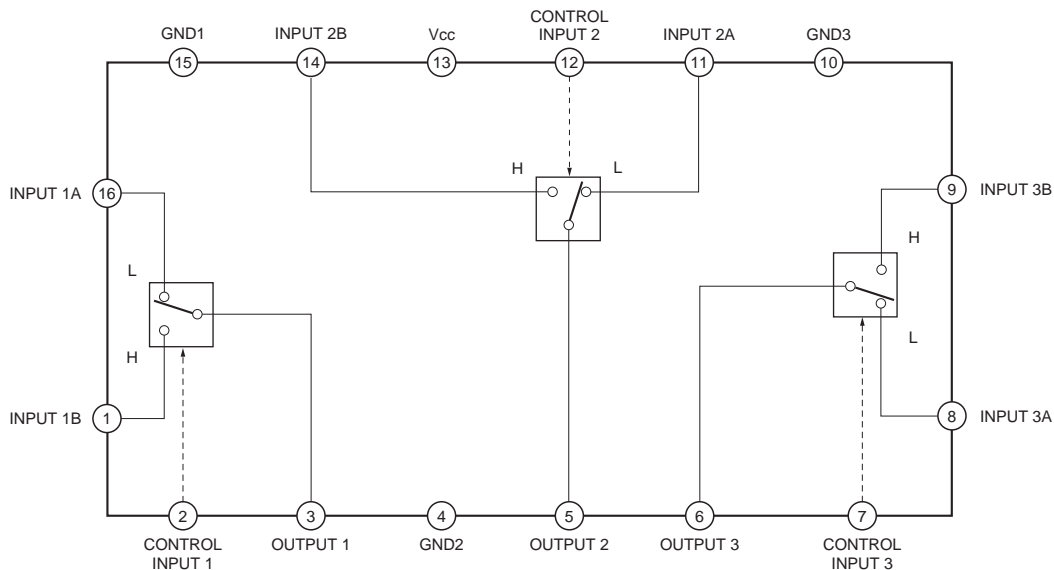




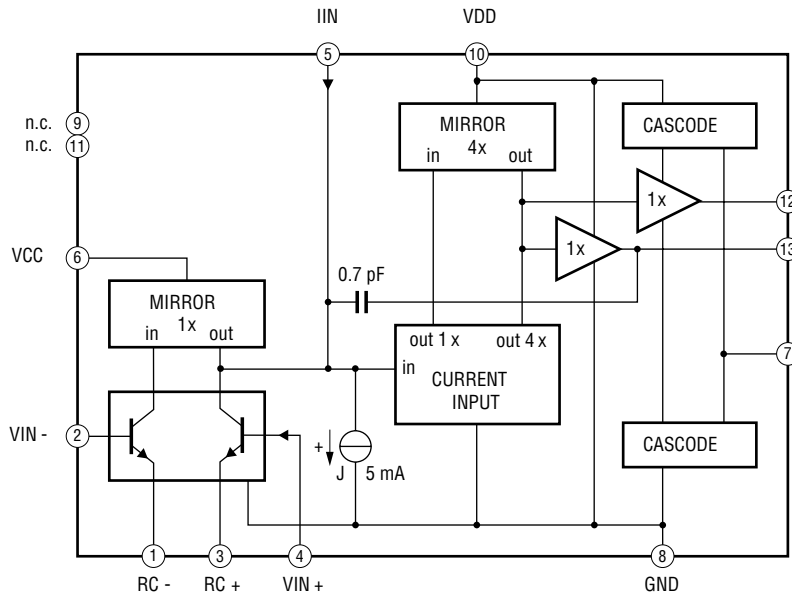
B BOARD : IC3413 SN74LV4053ANSR



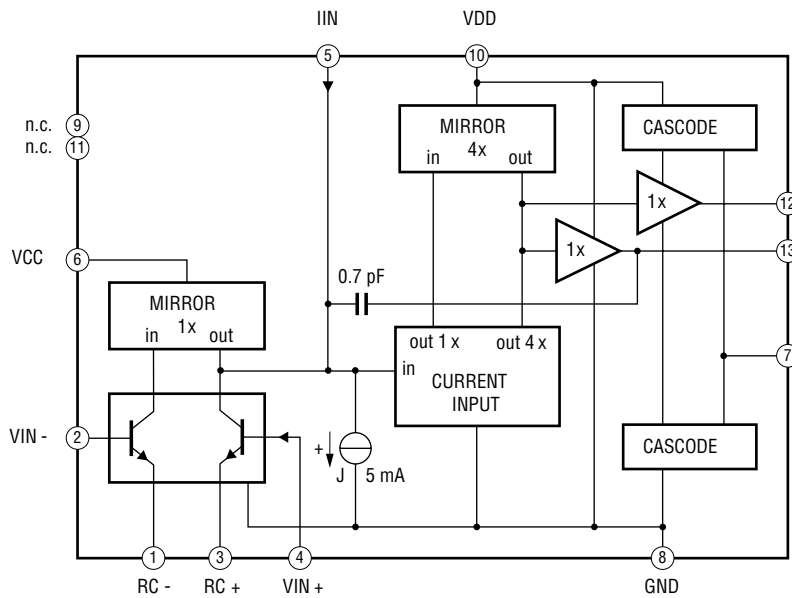
B BOARD : IC3414 M52055P



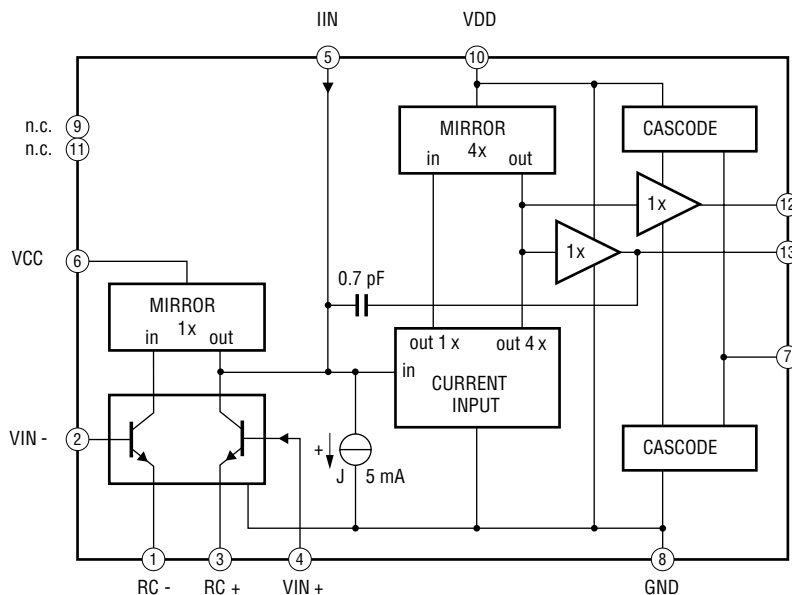
CR BOARD : IC7101 TDA6120Q

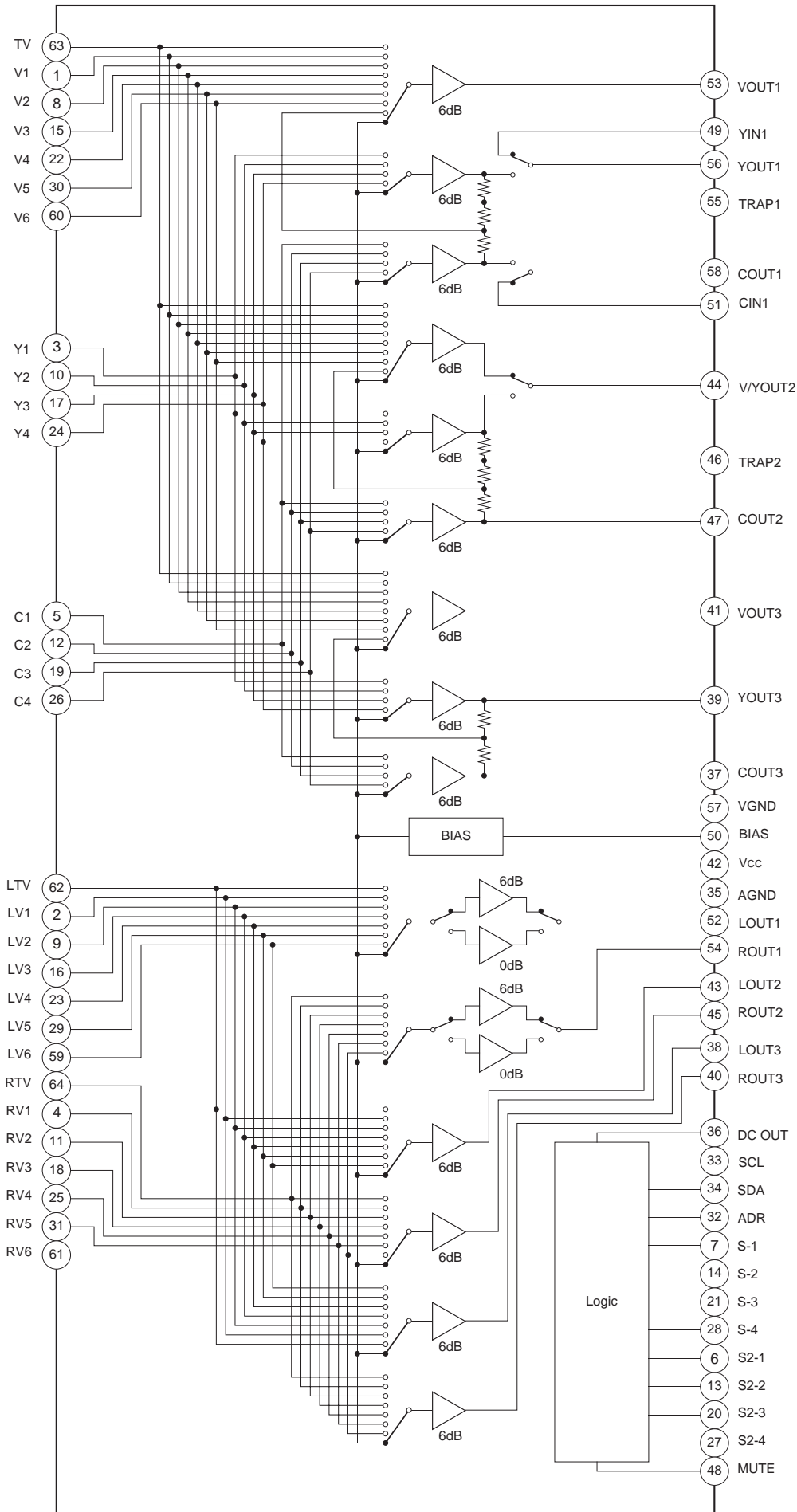


CG BOARD : IC7201 TDA6120Q



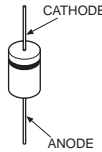
CB BOARD : IC7301 TDA6120Q



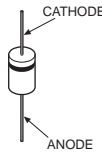


6-7. SEMICONDUCTORS

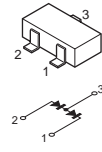
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21DP05
D1NL40-TR2
D1NS4
D2L20U
EL1Z
GP08DPKG23
RD10ES-B2
RD15ES-B2
RD18ES-B2
RD20ES-B2
RD5.6ES-B2
RGP02-17EL-6433
UF4005PKG23



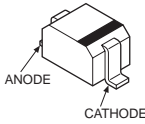
1SS133T-77
30DF4N-FC5
ERC04-06SE
ERC91-02



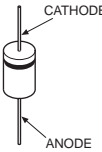
1SS226



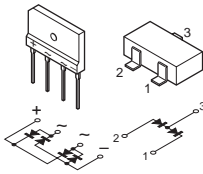
1S355TE-17
DTZ-10B
DTZ-TT11-6.8B
UDZS-TE-17-7.5B
UDZ-TE-17-10B
UDZS-TE-17-18B
UDZS-TE-17-22B
UDZS-TE-17-24B
UDZS-TE-17-3.9B
UDZS-TE-17-33B
UDZS-TE-17-4.7B
UDZS-TE-17-5.1B
UDZS-TE-17-5.6B
UDZS-TE-17-6.2B
UDZS-TE-17-9.1B



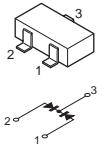
D1NL20U-TR



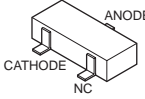
D4SBS4-F
D6SB60L



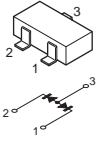
DAN202K-T-146



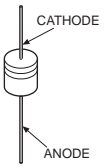
DAN202U



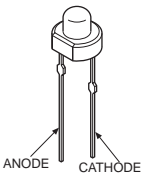
DAP202K



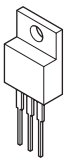
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MTZJ-T-77-22B



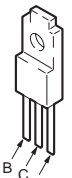
SLR-325VCT31



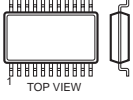
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TA7812S



BA05T

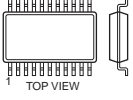


BA9759F-E2



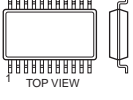
18pin SOP

BH3868BFS-E2



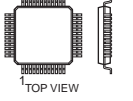
32pin SOP

CD0031AM



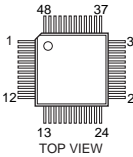
48pin SOP

CM0017AF

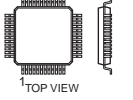


120pin QFP

CXA2151Q
CXD2013Q-T6

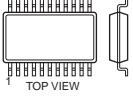


CXD2073Q-T4



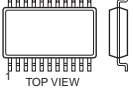
32pin QFP

CXD2085M
PCM56P-L
SN74LV4053ANSR



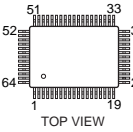
16pin SOP

CXA1726AM
NJM2180M

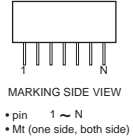


30pin SOP

CXA2069Q
CXP85840A-039Q
CXP86448-635Q
CX2150AQ

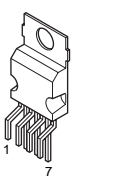


DM-58

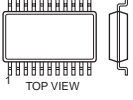


14pin DIP

LA78045

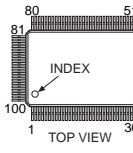


M24C08-MN6T
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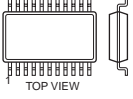


8pin SOP

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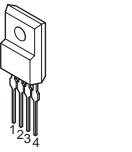


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40pin SOP

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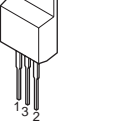


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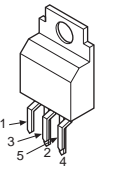


8pin DIP

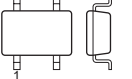
NJM7905FA



PQ1CG2032FZ

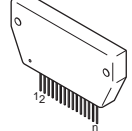


PST9143NL
PST9145NL



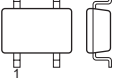
5pin CHIP

STK392-560



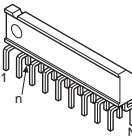
MARKING SIDE VIEW

TC7W08FU(TE12R)

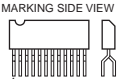


8pin CHIP

TDA6120Q / N2/S2

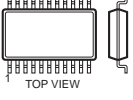


TDA7265



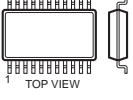
11pin ZIP

TEA6422DT



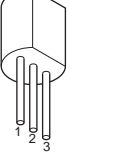
28pin SOP

TLC2933IPWR

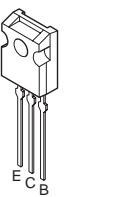


14pin SOP

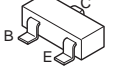
UPC1093J-1-T



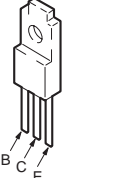
2SA1358-Y
2SA3421-Y



2SA1037AK-T146R
2SA1226-T1E3E4
2SC1623-L516
2SD601A-QRS-TX
DTC114EKA-T146
DTC144EKA-T146



2SA2005
2SC5511



2SC2688-LK



11pin ZIP

TEA6422DT



28pin SOP

TLC2933IPWR



14pin SOP

UPC1093J-1-T



2SA1358-Y
2SA3421-Y



2SA1037AK-T146R
2SA1226-T1E3E4
2SC1623-L516
2SD601A-QRS-TX
DTC114EKA-T146
DTC144EKA-T146



2SA2005
2SC5511





SECTION 7

EXPLODED VIEWS



NOTE:

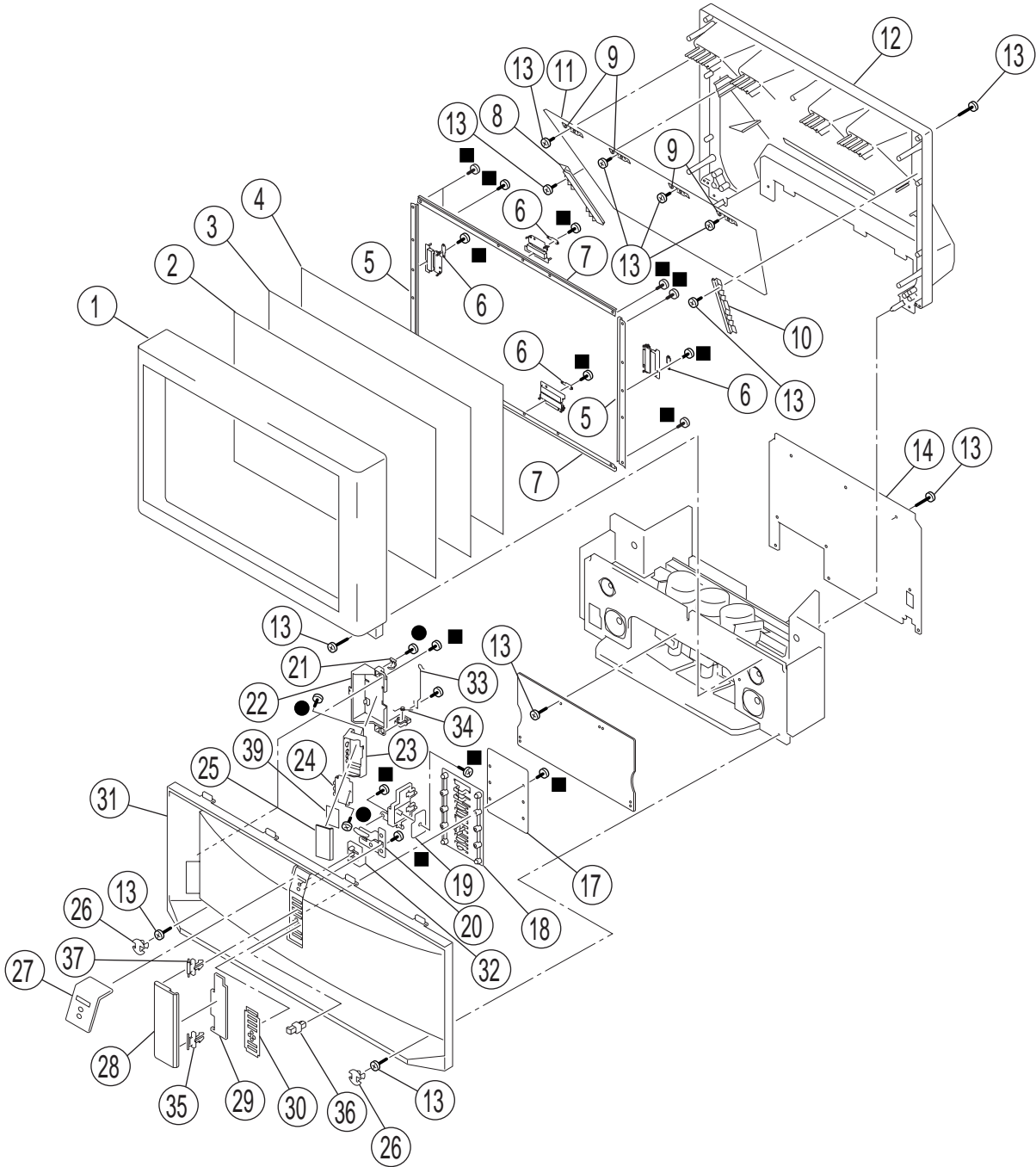
- Items with no part number and no description are not stocked because they are seldom required for routine service
 - The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

7-1. COVER

-  : +BVTP 3X12 7-685-648-79
-  : +BVTP 4X12 7-685-661-14



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	X-4039-325-1	BEZEL (57) ASSY (57HW40)		17	* A-1372-932-A	H2 BOARD, COMPLETE	
	X-4039-331-1	BEZEL (51) ASSY (51HW40)		18	4-082-284-01	BUTTON, MULTI	
2	4-081-951-11	SCREEN (57W), CONTRAST (57HW40)					
	4-081-954-11	SCREEN (51W), CONTRAST (51HW40)		19	* A-1377-041-A	H1 BOARD, COMPLETE (VAR)	
3	4-081-949-11	PLATE (57WL), DIFFUSION (57HW40)		20	4-082-283-01	BUTTON, POWER	
	4-081-952-11	PLATE (51WL), DIFFUSION (51HW40)		21	4-919-393-01	DAMPER	
				22	4-082-289-01	HOLDER, FRONT TERMINAL	
4	4-081-950-11	PLATE (57WV), DIFFUSION (57HW40)		23	4-082-288-02	BRACKET, H3	
	4-081-953-11	PLATE (51WV), DIFFUSION (51HW40)					
5	* 4-084-568-01	HOLDER, SCREEN (57HW40)		24	* A-1372-933-A	H3 BOARD, COMPLETE	
	* 4-084-617-01	HOLDER, SCREEN (51HW40)		25	4-083-468-01	DOOR, FRONT TERMINAL	
6	* A-1391-148-A	S BOARD, COMPLETE		26	4-083-503-01	SCREW CAP, GRILLE	
				27	4-083-732-01	PANEL (HW), FRONT	
7	* 4-084-568-11	HOLDER, SCREEN (57HW40)		28	4-083-730-01	DOOR (HW), CONTROL	
	* 4-084-617-11	HOLDER, SCREEN (51HW40)					
8	* 4-083-460-01	HOLDER (L), MIRROR SIDE (51HW40)		29	4-083-731-01	COVER (HW), CONTROL DOOR	
	* 4-083-462-01	HOLDER (L), MIRROR SIDE (57HW40)		30	4-084-571-01	LABEL (HW), CONTROL	
9	* 4-081-501-01	HOLDER, MIRROR		31	X-4039-326-1	GRILLE ASSY, SPEAKER (57HW40)	
					X-4039-332-1	GRILLE ASSY, SPEAKER (51HW40)	
10	* 4-083-459-01	HOLDER (R), MIRROR SIDE (51HW40)		32	4-083-733-01	GUIDE (HW), LED	
	* 4-083-461-01	HOLDER (R), MIRROR SIDE (57HW40)					
11	4-084-561-01	MIRROR (57) (57HW40)		33	4-084-564-01	SPRING (H3)	
	4-084-615-01	MIRROR (51) (51HW40)		34	4-083-505-01	SPRING, DOOR	
12	* 4-083-466-01	COVER (57), MIRROR (57HW40)		35	3-703-035-11	SHAFT, LID	
	* 4-083-467-01	COVER (51), MIRROR (51HW40)		36	4-042-192-01	CATCHER, PUSH	
				37	4-045-250-01	DAMPER	
13	4-081-063-01	SCREW,DOME WASHER HEX TAP 4X20		39	4-082-290-01	LABEL, FRONT TERMINAL	
14	* 4-084-577-01	BOARD, REAR (57HW40)					
	* 4-084-622-01	BOARD (51), REAR (51HW40)					

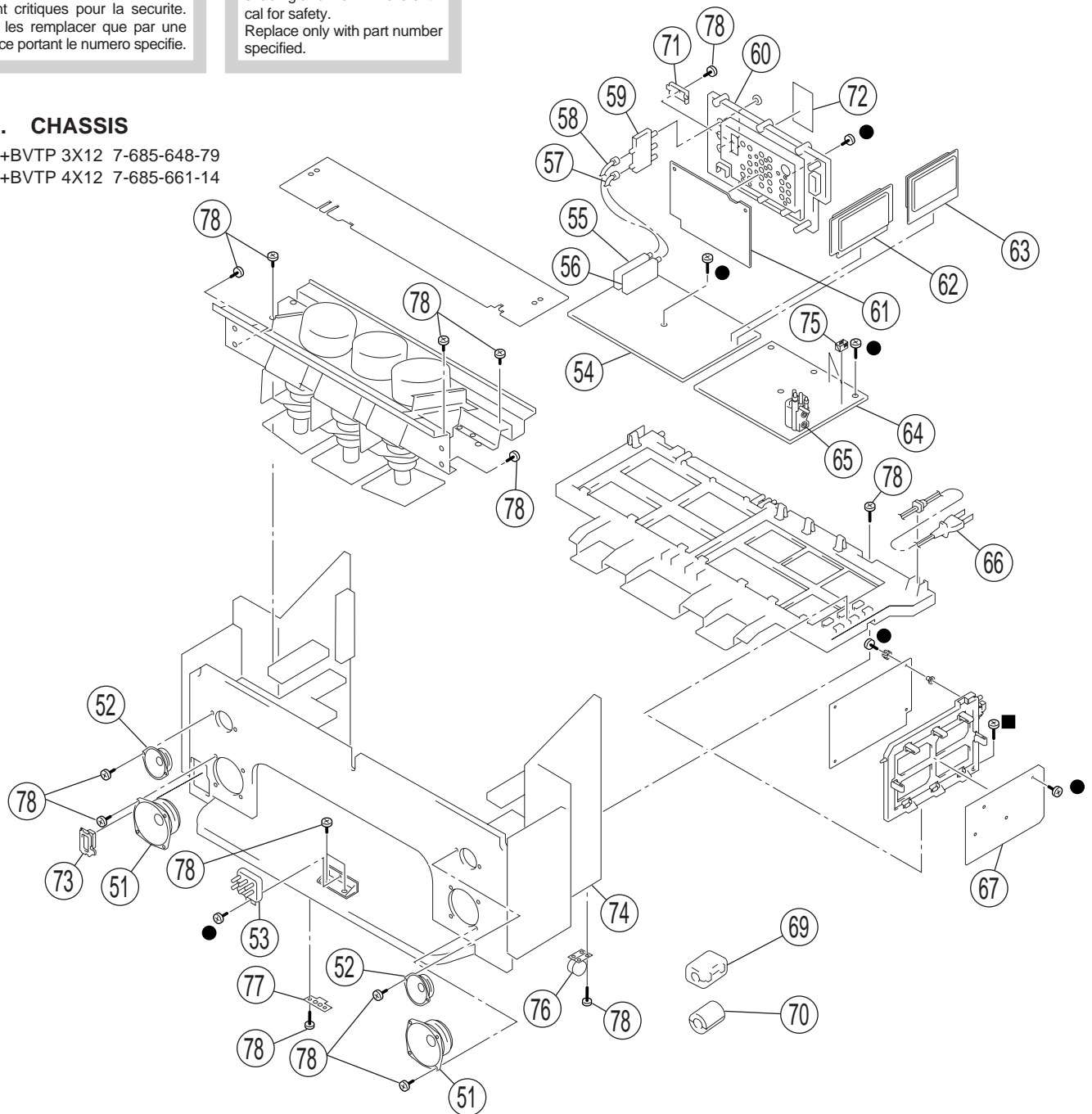
Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

7-2. CHASSIS

● : +BVTP 3X12 7-685-648-79

■ : +BVTP 4X12 7-685-661-14

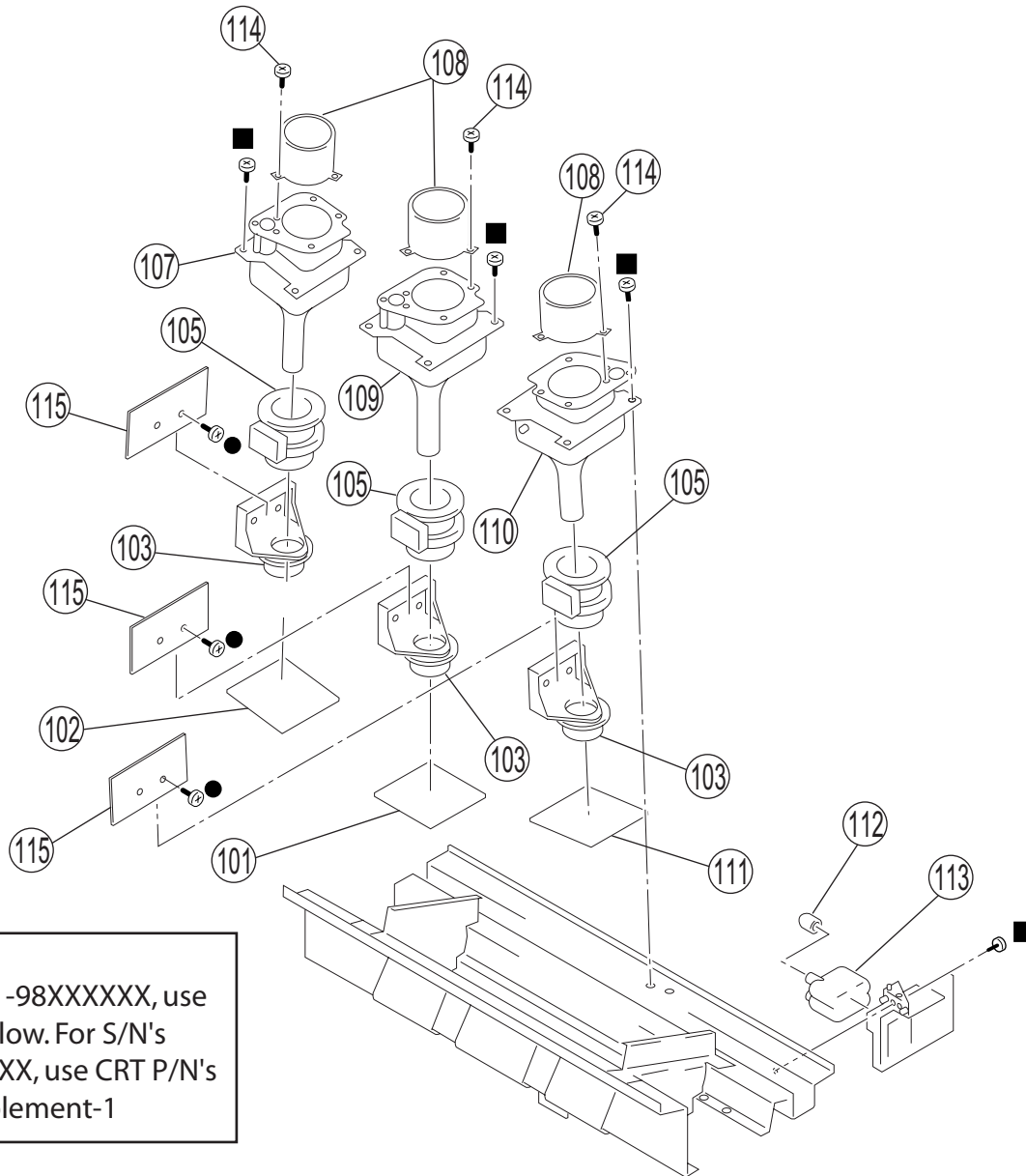


REF. NO.	PART NO.	DESCRIPTION	REMARK
51	1-544-894-11	SPEAKER (13cm)	
52	1-529-403-31	SPEAKER (6.6cm)	
53	Δ 1-223-925-11	RESISTOR ASSY	
		(HIGH-VOLTAGE)(FOCUS PACK)	
54	* A-1272-481-A	A BOARD, COMPLETE (VAR)	
54	* A-1299-596-A	A BOARD, COMPLETE	
55	8-598-542-20	TUNER, FSS BTF-WA412 (TU2)	
56	8-598-430-50	TUNER, FSS BTF-FA401 (TU1)	
57	* 1-557-056-31	CABLE, P-P	
58	* 1-551-488-91	CABLE, P-P	
59	1-771-787-11	SWITCH, RF ANTENNA	
60	4-081-961-01	BOARD, TERMINAL	
61	* A-1373-870-A	U BOARD, COMPLETE (VAR)	
62	* A-1136-218-A	B BOARD, COMPLETE	
63	* A-1299-523-A	AD BOARD, COMPLETE	
64	* A-1348-038-A	D BOARD, COMPLETE	

REF. NO.	PART NO.	DESCRIPTION	REMARK
65	Δ 1-453-285-21	FBT ASSY, NX-4006//X4P4 (T8005)	
66	Δ 1-790-130-11	CORD, AC POWER(WITH CONNECTOR)	
67	* A-1316-566-A	G BOARD, COMPLETE	
69	1-500-021-11	CLAMP, SLEEVE FERRITE	
70	1-543-653-11	CORE ASSY, BEAD (DIVISION TYPE)	
71	4-069-675-01	CAP, TERMINAL BOARD	
72	4-081-576-11	LABEL, TERMINAL	
73	* 4-084-570-01	COVER, CABINET (HW)	
74	X-4039-324-1	CABINET (57) ASSY, BOTTOM (57HW40)	73, 76, 77
	* X-4039-330-1	CABINET (51) ASSY, BOTTOM (51HW40)	73, 76, 77
75	3-710-578-01	COVER, VOLUME, 6 MOLD	
76	4-040-755-01	CASTER (DIA. 30)	
77	4-075-020-01	FOOT, PLASTIC	
78	4-081-063-01	SCREW, DOME WASHER HEX TAP 4X20	

7-3. PICTURE TUBE

- : +BVTP 3X12 7-685-648-79
- : +BVTP 4X12 7-685-661-14



NOTE:
For S/N's 97000001-98XXXXXX, use CRT P/N's listed below. For S/N's 90000001-90XXXXXX, use CRT P/N's referred to in Supplement-1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
101	* A-1332-241-A	CG BOARD, COMPLETE		111	* A-1332-242-A	CB BOARD, COMPLETE	
102	* A-1332-240-A	CR BOARD, COMPLETE		112	4-373-137-01	CAP (Z), RUBBER	
△ 103	1-451-535-11	COIL ASSY, VM		△ 113	8-598-955-31	BLOCK ASSY, HV HVB-1031	
△ 105	1-451-537-11	DEFLECTION YOKE		114	4-052-894-01	SCREW (4X20), HEAD TAPPING	
△ 107	A-1502-021-A	COUPLER (R) ASSY, CRT (57HW40)		115	* A-1342-598-A	V BOARD, COMPLETE	
△ 109	A-1502-023-A	COUPLER (R) ASSY, CRT (51HW40)					
108	4-083-750-01	LENS (DELTA 260)(57HW40)					
	4-083-751-01	LENS (DELTA 250)(51HW40)					
△ 109	A-1502-025-A	COUPLER (G) ASSY, CRT					
△ 110	A-1502-022-A	COUPLER (B) ASSY, CRT (57HW40)					
△ 111	A-1502-024-A	COUPLER (B) ASSY, CRT (51HW40)					

SECTION 8

ELECTRICAL PARTS LIST

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

- The components identified by in \square this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
 - Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- CAPACITORS**
PF : $\mu\mu$ F
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

RESISTORS
• All resistors are in ohms
• F : nonflammable

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1332-240-A CR BOARD, COMPLETE *****				< COIL >			
	4-382-854-11	SCREW (M3X10), P, SW (+)		L7101	1-469-555-21	INDUCTOR 10UH	
	* 7-651-000-50	GREASE,SILICON (G-746) 200G		L7102	1-469-555-21	INDUCTOR 10UH	
< CAPACITOR >				< TRANSISTOR >			
C7101	1-164-156-11	CERAMIC CHIP 0.1UF	25V	Q7101	8-729-026-49	2SA1037AK-T146-R	
C7102	1-101-003-00	CERAMIC 0.0047UF	50V	Q7102	8-729-422-27	2SD601A-Q	
C7103	1-104-570-11	CERAMIC 0.001UF	10% 2KV	Q7103	8-729-048-50	2SK3018-T106	
C7104	1-107-662-11	ELECT 22UF	20% 250V	< RESISTOR >			
C7105	1-162-918-11	CERAMIC CHIP 18PF	5% 50V	R7101	1-260-132-11	CARBON 560K	5% 1/2W
C7106	1-126-768-11	ELECT 2200UF	20% 16V	R7102	1-216-813-11	RES-CHIP 220	5% 1/16W
C7107	1-161-830-00	CERAMIC 0.0047UF	500V	R7103	1-218-693-11	METAL CHIP 1.1K	0.5% 1/16W
C7108	1-101-003-00	CERAMIC 0.0047UF	50V	R7104	1-218-696-11	METAL CHIP 1.5K	0.5% 1/16W
C7109	1-164-156-11	CERAMIC CHIP 0.1UF	25V	R7105	1-219-743-11	CARBON 100	5% 1/2W
C7110	1-164-156-11	CERAMIC CHIP 0.1UF	25V	R7106	1-216-825-11	RES-CHIP 2.2K	5% 1/16W
C7111	1-126-933-11	ELECT 100UF	20% 16V	R7107	1-260-133-11	CARBON 680K	5% 1/2W
C7112	1-164-156-11	CERAMIC CHIP 0.1UF	25V	R7108	1-218-692-11	METAL CHIP 1K	0.5% 1/16W
C7113	1-101-003-00	CERAMIC 0.0047UF	50V	R7109	1-216-815-11	RES-CHIP 330	5% 1/16W
C7114	1-162-966-11	CERAMIC CHIP 0.0022UF	10% 50V	R7110	1-218-700-11	METAL CHIP 2.2K	0.5% 1/16W
< CONNECTOR >				R7111	1-218-709-11	METAL CHIP 5.1K	0.5% 1/16W
CN7102*	1-564-509-11	PLUG, CONNECTOR 6P		R7112	1-218-748-11	METAL CHIP 220K	0.5% 1/16W
CN7103*	1-564-510-11	PLUG, CONNECTOR 7P		R7113	1-218-748-11	METAL CHIP 220K	0.5% 1/16W
CN7104	1-785-879-11	CONNECTOR, ONE TOUCH		R7114	1-215-925-11	METAL OXIDE 22K	5% 3W
CN7105	1-695-915-11	TAB (CONTACT)		R7115	1-260-328-11	CARBON 1K	5% 1/2W
CN7107	1-695-915-11	TAB (CONTACT)		R7116	1-216-829-11	RES-CHIP 4.7K	5% 1/16W
CN7108 Δ 1-251-182-11 SOCKET, CRT				R7117	1-260-087-11	CARBON 100	5% 1/2W
< DIODE >				R7118	1-216-823-11	RES-CHIP 1.5K	5% 1/16W
D7101	8-719-404-50	MA111-TX		R7119	1-260-093-11	CARBON 330	5% 1/2W
D7101	8-719-988-61	1SS355TE-17		R7120	1-218-710-11	METAL CHIP 5.6K	0.5% 1/16W
D7102	8-719-901-83	1SS83		< SPARK GAP >			
D7103	8-719-901-83	1SS83		SG7101	1-519-422-11	GAP, SPARK	
< IC >				SG7102	1-517-729-31	GAP, SPARK	
IC7101	8-759-680-01	TDA6120Q/N2/S1		SG7103	1-519-421-11	GAP, DISCHARGE	
< JUMPER RESISTOR >				*****			
JC7101	1-216-864-11	SHORT	0				

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

KP-51HW40/57HW40
RM-Y909 RM-Y909

CG CB

REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1332-241-A CG BOARD, COMPLETE *****			
	4-382-854-11	SCREW (M3X10), P, SW (+)	
	* 7-651-000-50	GREASE,SILICON (G-746) 200G	
< CAPACITOR >			
C7201	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C7202	1-101-003-00	CERAMIC 0.0047UF	50V
C7203	1-104-570-11	CERAMIC 0.001UF	10% 2KV
C7204	1-107-662-11	ELECT 22UF	20% 250V
C7205	1-162-920-11	CERAMIC CHIP 27PF	5% 50V
C7206	1-101-003-00	CERAMIC 0.0047UF	50V
C7207	1-126-768-11	ELECT 2200UF	20% 16V
C7208	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C7209	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C7210	1-126-933-11	ELECT 100UF	20% 16V
C7211	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C7212	1-161-830-00	CERAMIC 0.0047UF	500V
C7213	1-101-003-00	CERAMIC 0.0047UF	50V
C7214	1-162-966-11	CERAMIC CHIP 0.0022UF	10% 50V
C7215	1-164-156-11	CERAMIC CHIP 0.1UF	25V
< CONNECTOR >			
CN7202*	1-564-509-11	PLUG, CONNECTOR 6P	
CN7203*	1-564-510-11	PLUG, CONNECTOR 7P	
CN7204*	1-564-510-11	PLUG, CONNECTOR 7P	
CN7205	1-785-879-11	CONNECTOR, ONE TOUCH	
CN7206	1-695-915-11	TAB (CONTACT)	
CN7208	1-695-915-11	TAB (CONTACT)	
CN7209 Δ	1-251-182-11	SOCKET, CRT	
< DIODE >			
D7201	8-719-988-61	1SS355TE-17	
D7202	8-719-901-83	1SS83	
D7203	8-719-901-83	1SS83	
< IC >			
IC7201	8-759-680-01	TDA6120Q/N2/S1	
< JUMPER RESISTOR >			
JC7201	1-216-864-11	SHORT 0	
< COIL >			
L7201	1-469-555-21	INDUCTOR 10UH	
L7202	1-469-555-21	INDUCTOR 10UH	
< TRANSISTOR >			
Q7201	8-729-026-49	2SA1037AK-T146-R	
Q7202	8-729-422-27	2SD601A-Q	
Q7203	8-729-048-50	2SK3018-T106	
< RESISTOR >			
R7201	1-216-813-11	RES-CHIP 220	5% 1/16W
R7202	1-218-693-11	METAL CHIP 1.1K	0.5% 1/16W
R7203	1-218-696-11	METAL CHIP 1.5K	0.5% 1/16W
R7204	1-260-132-11	CARBON 560K	5% 1/2W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R7205	1-216-825-11	RES-CHIP 2.2K	5% 1/16W
R7206	1-219-743-11	CARBON 100	5% 1/2W
R7207	1-218-690-11	METAL CHIP 820	0.5% 1/16W
R7208	1-260-133-11	CARBON 680K	5% 1/2W
R7209	1-216-815-11	RES-CHIP 330	5% 1/16W
R7210	1-218-698-11	METAL CHIP 1.8K	0.5% 1/16W
R7211	1-218-708-11	METAL CHIP 4.7K	0.5% 1/16W
R7212	1-218-746-11	METAL CHIP 180K	0.5% 1/16W
R7213	1-218-746-11	METAL CHIP 180K	0.5% 1/16W
R7214	1-215-925-11	METAL OXIDE 22K	5% 3W
R7216	1-216-823-11	RES-CHIP 1.5K	5% 1/16W
R7217	1-260-099-11	CARBON 1K	5% 1/2W
R7218	1-260-087-11	CARBON 100	5% 1/2W
R7219	1-260-093-11	CARBON 330	5% 1/2W
R7220	1-218-710-11	METAL CHIP 5.6K	0.5% 1/16W
< SPARK GAP >			
SG7201	1-519-422-11	GAP, SPARK	
SG7202	1-517-729-31	GAP, SPARK	
SG7203	1-519-421-11	GAP, DISCHARGE	

* A-1332-242-A CB BOARD, COMPLETE *****			
	4-382-854-11	SCREW (M3X10), P, SW (+)	
	* 7-651-000-50	GREASE,SILICON (G-746) 200G	
< CAPACITOR >			
C7301	1-162-970-11	CERAMIC CHIP 0.01UF	10% 25V
C7302	1-162-919-11	CERAMIC CHIP 22PF	5% 50V
C7303	1-162-919-11	CERAMIC CHIP 22PF	5% 50V
C7304	1-101-003-00	CERAMIC 0.0047UF	50V
C7305	1-104-570-11	CERAMIC 0.001UF	10% 2KV
C7306	1-126-768-11	ELECT 2200UF	20% 16V
C7308	1-107-662-11	ELECT 22UF	20% 250V
C7309	1-101-003-00	CERAMIC 0.0047UF	0V
C7310	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C7311	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C7312	1-126-933-11	ELECT 100UF	20% 16V
C7313	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C7314	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C7315	1-161-830-00	CERAMIC 0.0047UF	500V
C7316	1-101-003-00	CERAMIC 0.0047UF	50V
C7317	1-162-966-11	CERAMIC CHIP 0.0022UF	10% 50V
< CONNECTOR >			
CN7302*	1-564-509-11	PLUG, CONNECTOR 6P	
CN7303*	1-564-510-11	PLUG, CONNECTOR 7P	
CN7304*	1-564-510-11	PLUG, CONNECTOR 7P	
CN7305	1-785-879-11	CONNECTOR, ONE TOUCH	
CN7307	1-695-915-11	TAB (CONTACT)	
CN7308	1-695-915-11	TAB (CONTACT)	
CN7309 Δ	1-251-182-11	SOCKET, CRT	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
< DIODE >				* A-1342-598-A V BOARD, COMPLETE *****			
D7301	8-719-988-61	ISS355TE-17		4-382-854-11 SCREW (M3X10), P, SW (+)			
D7302	8-719-988-61	ISS355TE-17		< CAPACITOR >			
D7303	8-719-901-83	ISS83		C9002	1-104-999-11	MYLAR 0.1UF 10% 200V	
D7304	8-719-901-83	ISS83		C9003	1-125-891-11	CERAMIC CHIP 0.47UF 10% 10V	
< IC >				C9006	1-126-935-11	ELECT 470UF 20% 6.3V	
IC7301	8-759-680-01	TDA6120Q/N2/S1		C9007	1-126-933-11	ELECT 100UF 20% 16V	
< JUMPER RESISTOR >				C9008	1-126-935-11	ELECT 470UF 20% 6.3V	
JC7301	1-216-864-11	SHORT 0		C9009	1-126-933-11	ELECT 100UF 20% 16V	
< COIL >				C9010	1-107-667-11	ELECT 2.2UF 20% 160V	
L7301	1-469-555-21	INDUCTOR 10UH		C9011	1-107-364-11	MYLAR 0.01UF 10% 200V	
L7302	1-469-555-21	INDUCTOR 10UH		C9012	1-107-364-11	MYLAR 0.01UF 10% 200V	
< TRANSISTOR >				C9013	1-162-964-11	CERAMIC CHIP 0.001UF 10% 50V	
Q7301	8-729-026-49	2SA1037AK-T146-R		C9014	1-162-964-11	CERAMIC CHIP 0.001UF 10% 50V	
Q7302	8-729-026-49	2SA1037AK-T146-R		C9015	1-126-935-11	ELECT 470UF 20% 16V	
Q7303	8-729-422-27	2SD601A-Q		C9017	1-104-999-11	MYLAR 0.1UF 10% 200V	
Q7304	8-729-048-50	2SK3018-T106		C9018	1-107-638-11	ELECT 33UF 20% 160V	
< RESISTOR >				C9019	1-126-935-11	ELECT 470UF 20% 16V	
R7301	1-249-393-11	CARBON 10 5% 1/4W		< CONNECTOR >			
R7302	1-216-822-11	RES-CHIP 1.2K 5% 1/16W		CN9001*	1-564-508-11	PLUG, CONNECTOR 5P	
R7303	1-216-813-11	RES-CHIP 220 5% 1/16W		CN9002*	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P	
R7304	1-260-132-11	CARBON 560K 5% 1/2W		< DIODE >			
R7305	1-216-817-11	RES-CHIP 470 5% 1/16W		D9001	8-719-404-50	MA111-TX	
R7306	1-218-692-11	METAL CHIP 1K 0.5% 1/16W		D9002	8-719-404-50	MA111-TX	
R7307	1-219-743-11	CARBON 100 5% 1/2W		D9003	8-719-404-50	MA111-TX	
R7308	1-216-809-11	RES-CHIP 100 5% 1/16W		D9004	8-719-404-50	MA111-TX	
R7310	1-218-710-11	METAL CHIP 5.6K 0.5% 1/16W		D9005	8-719-510-02	D1NS4	
R7311	1-218-694-11	METAL CHIP 1.2K 0.5% 1/16W		D9006	8-719-924-13	MTZJ-T-77-22B	
R7312	1-260-133-11	CARBON 680K 5% 1/2W		D9007	8-719-924-13	MTZJ-T-77-22B	
R7313	1-216-818-11	RES-CHIP 560 5% 1/16W		< COIL >			
R7314	1-218-678-11	METAL CHIP 270 0.5% 1/16W		L9001	1-412-525-31	INDUCTOR 10UH	
R7315	1-218-688-11	METAL CHIP 680 0.5% 1/16W		< TRANSISTOR >			
R7316	1-218-693-11	METAL CHIP 1.1K 0.5% 1/16W		Q9002	8-729-422-27	2SD601A-Q	
R7317	1-218-696-11	METAL CHIP 1.5K 0.5% 1/16W		Q9003	8-729-422-27	2SD601A-Q	
R7318	1-218-704-11	METAL CHIP 3.3K 0.5% 1/16W		Q9004	8-729-026-49	2SA1037AK-T146-R	
R7319	1-216-825-11	RES-CHIP 2.2K 5% 1/16W		Q9005	8-729-422-27	2SD601A-Q	
R7320	1-218-749-11	METAL CHIP 240K 0.5% 1/16W		Q9006	8-729-026-49	2SA1037AK-T146-R	
R7321	1-218-749-11	METAL CHIP 240K 0.5% 1/16W		Q9007	8-729-422-27	2SD601A-Q	
R7322	1-215-925-11	METAL OXIDE 22K 5% 3W		Q9008	8-729-045-04	2SC5511	
R7323	1-216-829-11	RES-CHIP 4.7K 5% 1/16W		Q9009	8-729-045-05	2SA2005	
R7324	1-260-328-11	CARBON 1K 5% 1/2W		< RESISTOR >			
R7325	1-216-823-11	RES-CHIP 1.5K 5% 1/16W		R9002	1-216-805-11	RES-CHIP 47 5% 1/16W	
R7326	1-260-093-11	CARBON 330 5% 1/2W		R9004	1-216-820-11	RES-CHIP 820 5% 1/16W	
R7327	1-260-087-11	CARBON 100 5% 1/2W		R9005	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
< SPARK GAP >				R9006	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
SG7301	1-519-422-11	GAP, SPARK		R9007	1-216-809-11	RES-CHIP 100 5% 1/16W	
SG7302	1-517-729-31	GAP, SPARK		R9008	1-216-803-11	RES-CHIP 33 5% 1/16W	
SG7303	1-519-421-11	GAP, DISCHARGE		R9009	1-216-809-11	RES-CHIP 100 5% 1/16W	
*****				R9010	1-216-813-11	RES-CHIP 220 5% 1/16W	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R9011	1-216-864-11	SHORT	0	C3318	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R9012	1-216-823-11	RES-CHIP	1.5K 5% 1/16W	C3319	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R9013	1-216-805-11	RES-CHIP	47 5% 1/16W	C3320	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R9014	1-216-805-11	RES-CHIP	47 5% 1/16W	C3321	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R9015	1-216-833-11	RES-CHIP	10K 5% 1/16W	C3322	1-126-204-11	ELECT CHIP	47UF 20% 16V
R9016	1-249-414-11	CARBON	560 5% 1/4W	C3323	1-124-779-00	ELECT CHIP	10UF 20% 16V
R9017	1-249-435-11	CARBON	33K 5% 1/4W	C3324	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R9018	1-249-435-11	CARBON	33K 5% 1/4W	C3325	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R9019	1-249-414-11	CARBON	560 5% 1/4W	C3326	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R9020	1-216-799-11	RES-CHIP	15 5% 1/16W	C3327	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R9021	1-216-799-11	RES-CHIP	15 5% 1/16W	C3328	1-124-779-00	ELECT CHIP	10UF 20% 16V
R9022	1-249-421-11	CARBON	2.2K 5% 1/4W	C3329	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
R9023	1-249-421-11	CARBON	2.2K 5% 1/4W	C3331	1-126-204-11	ELECT CHIP	47UF 20% 16V
R9024	1-249-405-11	CARBON	100 5% 1/4W	C3332	1-124-779-00	ELECT CHIP	10UF 20% 16V
R9025	1-249-385-11	CARBON	2.2 5% 1/4W	C3333	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R9027	1-249-385-11	CARBON	2.2 5% 1/4W	C3334	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
R9028	1-249-405-11	CARBON	100 5% 1/4W	C3335	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R9029	1-215-913-11	METAL OXIDE	220 5% 3W	C3336	1-124-779-00	ELECT CHIP	10UF 20% 16V
R9030	1-249-377-11	CARBON	0.47 5% 1/4W	C3337	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
R9031	1-249-385-11	CARBON	2.2 5% 1/4W	C3338	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R9032	1-249-385-11	CARBON	2.2 5% 1/4W	C3339	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R9033	1-249-436-11	CARBON	39K 5% 1/4W	C3340	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R9034	1-249-436-11	CARBON	39K 5% 1/4W	C3341	1-164-156-11	CERAMIC CHIP	0.1UF 25V
*****				C3343	1-164-156-11	CERAMIC CHIP	0.1UF 25V
* A-1136-218-A B BOARD, COMPLETE				C3344	1-164-156-11	CERAMIC CHIP	0.1UF 25V
*****				C3345	1-126-204-11	ELECT CHIP	47UF 20% 16V
< CAPACITOR >				C3346	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3001	1-128-453-21	ELECT CHIP	47UF 20% 6.3V	C3347	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3002	1-128-453-21	ELECT CHIP	47UF 20% 6.3V	C3348	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3003	1-128-453-21	ELECT CHIP	47UF 20% 6.3V	C3349	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3035	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C3350	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3044	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3351	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3089	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C3352	1-124-779-00	ELECT CHIP	10UF 20% 16V
C3090	1-126-204-11	ELECT CHIP	47UF 20% 16V	C3353	1-126-204-11	ELECT CHIP	47UF 20% 16V
C3096	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C3354	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3101	1-162-925-11	CERAMIC CHIP	68PF 5% 50V	C3355	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3102	1-162-925-11	CERAMIC CHIP	68PF 5% 50V	C3356	1-126-204-11	ELECT CHIP	47UF 20% 16V
C3301	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3357	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3302	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3358	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3303	1-126-206-11	ELECT CHIP	100UF 20% 6.3V	C3359	1-126-204-11	ELECT CHIP	47UF 20% 16V
C3304	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3360	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3305	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3361	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
C3306	1-126-204-11	ELECT CHIP	47UF 20% 16V	C3362	1-127-760-11	CERAMIC CHIP	4.7UF 10% 6.3V
C3307	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3363	1-126-204-11	ELECT CHIP	47UF 20% 16V
C3308	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3364	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3309	1-126-206-11	ELECT CHIP	100UF 20% 6.3V	C3365	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3310	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3366	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3311	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3367	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3312	1-126-206-11	ELECT CHIP	100UF 20% 6.3V	C3368	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3313	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3369	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3314	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3370	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3315	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3371	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3316	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3372	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3317	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3373	1-162-915-11	CERAMIC CHIP	10PF 0.50PF50V
				C3374	1-164-156-11	CERAMIC CHIP	0.1UF 25V
				C3375	1-127-760-11	CERAMIC CHIP	4.7UF 10% 6.3V
				C3376	1-164-156-11	CERAMIC CHIP	0.1UF 25V

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C3377	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C3455	1-124-779-00	ELECT CHIP	10UF 20% 16V
C3378	1-126-204-11	ELECT CHIP	47UF 20% 16V	C3456	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3379	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3457	1-124-779-00	ELECT CHIP	10UF 20% 16V
C3401	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3458	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3402	1-124-779-00	ELECT CHIP	10UF 20% 16V	C3460	1-162-923-11	CERAMIC CHIP	47PF 5% 50V
C3403	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3462	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3404	1-126-206-11	ELECT CHIP	100UF 20% 6.3V	C3463	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3405	1-126-206-11	ELECT CHIP	100UF 20% 6.3V	C3464	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3406	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C3465	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3407	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C3466	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3408	1-126-206-11	ELECT CHIP	100UF 20% 6.3V	C3467	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3409	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3468	1-126-206-11	ELECT CHIP	100UF 20% 6.3V
C3410	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3469	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3411	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3470	1-126-206-11	ELECT CHIP	100UF 20% 6.3V
C3412	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3473	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3413	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3474	1-124-779-00	ELECT CHIP	10UF 20% 16V
C3414	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3475	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3415	1-124-779-00	ELECT CHIP	10UF 20% 16V	C3476	1-124-779-00	ELECT CHIP	10UF 20% 16V
C3416	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3477	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3417	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3478	1-126-204-11	ELECT CHIP	47UF 20% 16V
C3418	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C3479	1-124-779-00	ELECT CHIP	10UF 20% 16V
C3419	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3480	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3420	1-124-779-00	ELECT CHIP	10UF 20% 16V	C3481	1-117-681-11	ELECT CHIP	100UF 20% 16V
C3421	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3482	1-117-681-11	ELECT CHIP	100UF 20% 16V
C3422	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3483	1-117-681-11	ELECT CHIP	100UF 20% 16V
C3423	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C3484	1-125-837-91	CERAMIC CHIP	1UF 10% 6.3V
C3424	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3485	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3425	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C3486	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3426	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3487	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3428	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C3488	1-124-779-00	ELECT CHIP	10UF 20% 16V
C3429	1-124-779-00	ELECT CHIP	10UF 20% 16V	C3489	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3430	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3490	1-124-779-00	ELECT CHIP	10UF 20% 16V
C3431	1-126-204-11	ELECT CHIP	47UF 20% 16V	C3491	1-126-204-11	ELECT CHIP	47UF 20% 16V
C3432	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3492	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3433	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C3493	1-126-204-11	ELECT CHIP	47UF 20% 16V
C3434	1-126-204-11	ELECT CHIP	47UF 20% 16V	C3494	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3435	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C3495	1-124-779-00	ELECT CHIP	10UF 20% 16V
C3436	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C3496	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C3437	1-126-204-11	ELECT CHIP	47UF 20% 16V	C3499	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
C3438	1-164-156-11	CERAMIC CHIP	0.1UF 25V	< CONNECTOR >			
C3439	1-164-156-11	CERAMIC CHIP	0.1UF 25V	CN3203* 1-793-923-11 CONNECTOR, DIN (PLUG) 64P			
C3440	1-162-916-11	CERAMIC CHIP	12PF 5% 50V	< DIODE >			
C3441	1-162-916-11	CERAMIC CHIP	12PF 5% 50V	D3089 8-719-800-76 1SS226			
C3442	1-124-779-00	ELECT CHIP	10UF 20% 16V	D3090 8-719-800-76 1SS226			
C3443	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D3301 8-719-083-58 UDZSTE-173.9B			
C3444	1-164-156-11	CERAMIC CHIP	0.1UF 25V	D3302 8-719-069-60 UDZSTE-179.1B			
C3445	1-126-204-11	ELECT CHIP	47UF 20% 16V	D3401 8-719-914-43 DAN202K			
C3446	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D3402 8-719-914-45 DAP202K			
C3447	1-164-156-11	CERAMIC CHIP	0.1UF 25V	D3403 8-719-069-33 DTZ-TT11-6.8B			
C3448	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	< FERRITE BEAD >			
C3449	1-164-156-11	CERAMIC CHIP	0.1UF 25V	FB3302 1-500-451-11 FERRITE 0UH			
C3450	1-164-156-11	CERAMIC CHIP	0.1UF 25V	FB3401 1-414-235-22 FERRITE 0UH			
C3451	1-164-156-11	CERAMIC CHIP	0.1UF 25V	FB3402 1-414-235-22 FERRITE 0UH			
C3452	1-164-156-11	CERAMIC CHIP	0.1UF 25V				
C3453	1-124-779-00	ELECT CHIP	10UF 20% 16V				
C3454	1-164-156-11	CERAMIC CHIP	0.1UF 25V				

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R3091	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3340	1-216-855-11	RES-CHIP	680K 5% 1/16W
R3092	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3341	1-216-813-11	RES-CHIP	220 5% 1/16W
R3095	1-216-845-11	RES-CHIP	100K 5% 1/16W	R3342	1-218-705-11	METAL CHIP	3.6K 0.5% 1/16W
R3096	1-216-817-11	RES-CHIP	470 5% 1/16W	R3343	1-216-809-11	RES-CHIP	100 5% 1/16W
R3097	1-216-845-11	RES-CHIP	100K 5% 1/16W	R3344	1-216-853-11	RES-CHIP	470K 5% 1/16W
R3098	1-216-805-11	RES-CHIP	47 5% 1/16W	R3345	1-218-704-11	METAL CHIP	3.3K 0.5% 1/16W
R3099	1-216-805-11	RES-CHIP	47 5% 1/16W	R3346	1-216-809-11	RES-CHIP	100 5% 1/16W
R3100	1-216-809-11	RES-CHIP	100 5% 1/16W	R3347	1-216-815-11	RES-CHIP	330 5% 1/16W
R3101	1-216-809-11	RES-CHIP	100 5% 1/16W	R3348	1-216-864-11	SHORT	0
R3102	1-216-809-11	RES-CHIP	100 5% 1/16W	R3349	1-218-687-11	METAL CHIP	620 0.5% 1/16W
R3103	1-216-822-11	RES-CHIP	1.2K 5% 1/16W	R3350	1-216-814-11	RES-CHIP	270 5% 1/16W
R3104	1-216-809-11	RES-CHIP	100 5% 1/16W	R3351	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3105	1-216-809-11	RES-CHIP	100 5% 1/16W	R3352	1-216-853-11	RES-CHIP	470K 5% 1/16W
R3106	1-216-818-11	RES-CHIP	560 5% 1/16W	R3353	1-216-837-11	RES-CHIP	22K 5% 1/16W
R3107	1-216-864-11	SHORT	0	R3354	1-216-813-11	RES-CHIP	220 5% 1/16W
R3108	1-216-817-11	RES-CHIP	470 5% 1/16W	R3355	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3109	1-216-823-11	RES-CHIP	1.5K 5% 1/16W	R3356	1-216-819-11	RES-CHIP	680 5% 1/16W
R3110	1-216-809-11	RES-CHIP	100 5% 1/16W	R3357	1-218-676-11	METAL CHIP	220 0.5% 1/16W
R3111	1-216-809-11	RES-CHIP	100 5% 1/16W	R3358	1-218-676-11	METAL CHIP	220 0.5% 1/16W
R3301	1-216-809-11	RES-CHIP	100 5% 1/16W	R3359	1-218-676-11	METAL CHIP	220 0.5% 1/16W
R3302	1-216-817-11	RES-CHIP	470 5% 1/16W	R3360	1-216-827-11	RES-CHIP	3.3K 5% 1/16W
R3303	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W	R3361	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3304	1-216-809-11	RES-CHIP	100 5% 1/16W	R3364	1-216-864-11	SHORT	0
R3305	1-216-809-11	RES-CHIP	100 5% 1/16W	R3365	1-216-827-11	RES-CHIP	3.3K 5% 1/16W
R3306	1-216-809-11	RES-CHIP	100 5% 1/16W	R3366	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3307	1-216-864-11	SHORT	0	R3367	1-216-803-11	RES-CHIP	33 5% 1/16W
R3308	1-216-864-11	SHORT	0	R3369	1-216-864-11	SHORT	0
R3309	1-218-662-11	METAL CHIP	56 0.5% 1/16W	R3371	1-218-686-11	METAL CHIP	560 0.5% 1/16W
R3310	1-218-662-11	METAL CHIP	56 0.5% 1/16W	R3372	1-216-817-11	RES-CHIP	470 5% 1/16W
R3311	1-218-662-11	METAL CHIP	56 0.5% 1/16W	R3373	1-216-817-11	RES-CHIP	470 5% 1/16W
R3312	1-218-662-11	METAL CHIP	56 0.5% 1/16W	R3374	1-216-809-11	RES-CHIP	100 5% 1/16W
R3313	1-216-835-11	RES-CHIP	15K 5% 1/16W	R3375	1-218-686-11	METAL CHIP	560 0.5% 1/16W
R3314	1-218-665-11	METAL CHIP	75 0.5% 1/16W	R3376	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W
R3315	1-216-835-11	RES-CHIP	15K 5% 1/16W	R3377	1-216-817-11	RES-CHIP	470 5% 1/16W
R3316	1-218-664-11	METAL CHIP	68 0.5% 1/16W	R3378	1-216-817-11	RES-CHIP	470 5% 1/16W
R3317	1-218-664-11	METAL CHIP	68 0.5% 1/16W	R3379	1-216-809-11	RES-CHIP	100 5% 1/16W
R3318	1-218-665-11	METAL CHIP	75 0.5% 1/16W	R3380	1-218-686-11	METAL CHIP	560 0.5% 1/16W
R3319	1-218-662-11	METAL CHIP	56 0.5% 1/16W	R3381	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W
R3320	1-218-662-11	METAL CHIP	56 0.5% 1/16W	R3382	1-216-864-11	SHORT	0
R3321	1-218-662-11	METAL CHIP	56 0.5% 1/16W	R3383	1-216-817-11	RES-CHIP	470 5% 1/16W
R3322	1-218-662-11	METAL CHIP	56 0.5% 1/16W	R3410	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3323	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3421	1-216-864-11	SHORT	0
R3324	1-216-827-11	RES-CHIP	3.3K 5% 1/16W	R3422	1-216-864-11	SHORT	0
R3325	1-216-827-11	RES-CHIP	3.3K 5% 1/16W	R3423	1-216-813-11	RES-CHIP	220 5% 1/16W
R3326	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3428	1-216-803-11	RES-CHIP	33 5% 1/16W
R3327	1-216-835-11	RES-CHIP	15K 5% 1/16W	R3429	1-216-823-11	RES-CHIP	1.5K 5% 1/16W
R3328	1-216-864-11	SHORT	0	R3432	1-216-815-11	RES-CHIP	330 5% 1/16W
R3329	1-216-815-11	RES-CHIP	330 5% 1/16W	R3434	1-216-809-11	RES-CHIP	100 5% 1/16W
R3330	1-216-815-11	RES-CHIP	330 5% 1/16W	R3445	1-216-864-11	SHORT	0
R3331	1-216-841-11	RES-CHIP	47K 5% 1/16W	R3446	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3332	1-218-709-11	METAL CHIP	5.1K 0.5% 1/16W	R3447	1-216-819-11	RES-CHIP	680 5% 1/16W
R3333	1-216-864-11	SHORT	0	R3448	1-216-855-11	RES-CHIP	680K 5% 1/16W
R3334	1-216-809-11	RES-CHIP	100 5% 1/16W	R3452	1-216-864-11	SHORT	0
R3335	1-216-833-11	RES-CHIP	10K 5% 1/16W	R3454	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3337	1-216-820-11	RES-CHIP	820 5% 1/16W	R3460	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3338	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3461	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3339	1-216-855-11	RES-CHIP	680K 5% 1/16W	R3464	1-216-821-11	RES-CHIP	1K 5% 1/16W

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R3465	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3824	1-216-826-11	RES-CHIP	2.7K 5% 1/16W
R3467	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3825	1-216-826-11	RES-CHIP	2.7K 5% 1/16W
R3470	1-216-809-11	RES-CHIP	100 5% 1/16W	R3826	1-216-809-11	RES-CHIP	100 5% 1/16W
R3471	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3828	1-218-684-11	METAL CHIP	470 0.5% 1/16W
R3472	1-216-801-11	RES-CHIP	22 5% 1/16W	R3829	1-218-684-11	METAL CHIP	470 0.5% 1/16W
R3475	1-216-809-11	RES-CHIP	100 5% 1/16W	R3830	1-218-684-11	METAL CHIP	470 0.5% 1/16W
R3476	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3831	1-216-864-11	SHORT	0
R3477	1-218-701-11	METAL CHIP	2.4K 0.5% 1/16W	R3832	1-216-864-11	SHORT	0
R3478	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3833	1-216-864-11	SHORT	0
R3483	1-218-701-11	METAL CHIP	2.4K 0.5% 1/16W	R3834	1-218-678-11	METAL CHIP	270 0.5% 1/16W
R3484	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3835	1-218-678-11	METAL CHIP	270 0.5% 1/16W
R3485	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3836	1-218-678-11	METAL CHIP	270 0.5% 1/16W
R3486	1-216-801-11	RES-CHIP	22 5% 1/16W	R3837	1-218-678-11	METAL CHIP	270 0.5% 1/16W
R3489	1-216-864-11	SHORT	0	R3838	1-218-678-11	METAL CHIP	270 0.5% 1/16W
R3490	1-216-864-11	SHORT	0	R3839	1-218-670-11	METAL CHIP	120 0.5% 1/16W
R3491	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3840	1-216-803-11	RES-CHIP	33 5% 1/16W
R3492	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3841	1-218-670-11	METAL CHIP	120 0.5% 1/16W
R3493	1-218-701-11	METAL CHIP	2.4K 0.5% 1/16W	R3842	1-218-689-11	METAL CHIP	750 0.5% 1/16W
R3495	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3846	1-216-801-11	RES-CHIP	22 5% 1/16W
R3496	1-216-801-11	RES-CHIP	22 5% 1/16W	R3847	1-216-801-11	RES-CHIP	22 5% 1/16W
R3497	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R3848	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3498	1-216-818-11	RES-CHIP	560 5% 1/16W	R3849	1-218-675-11	METAL CHIP	200 0.5% 1/16W
R3499	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3850	1-218-675-11	METAL CHIP	200 0.5% 1/16W
R3501	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3851	1-216-809-11	RES-CHIP	100 5% 1/16W
R3502	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3852	1-218-675-11	METAL CHIP	200 0.5% 1/16W
R3503	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3854	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3504	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3857	1-216-809-11	RES-CHIP	100 5% 1/16W
R3505	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3858	1-218-704-11	METAL CHIP	3.3K 0.5% 1/16W
R3506	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3862	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3507	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3863	1-218-700-11	METAL CHIP	2.2K 0.5% 1/16W
R3508	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3864	1-216-827-11	RES-CHIP	3.3K 5% 1/16W
R3509	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3865	1-216-809-11	RES-CHIP	100 5% 1/16W
R3510	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3866	1-414-234-22	FERRITE	0UH
R3511	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3867	1-414-234-22	FERRITE	0UH
R3512	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3868	1-414-234-22	FERRITE	0UH
R3800	1-216-864-11	SHORT	0	R3869	1-218-719-11	METAL CHIP	13K 0.5% 1/16W
R3802	1-218-678-11	METAL CHIP	270 0.5% 1/16W	R3870	1-218-719-11	METAL CHIP	13K 0.5% 1/16W
R3803	1-218-678-11	METAL CHIP	270 0.5% 1/16W	R3871	1-218-719-11	METAL CHIP	13K 0.5% 1/16W
R3804	1-218-678-11	METAL CHIP	270 0.5% 1/16W	R3881	1-216-807-11	RES-CHIP	68 5% 1/16W
R3805	1-218-678-11	METAL CHIP	270 0.5% 1/16W	R3882	1-216-807-11	RES-CHIP	68 5% 1/16W
R3806	1-218-662-11	METAL CHIP	56 0.5% 1/16W	R3883	1-216-807-11	RES-CHIP	68 5% 1/16W
R3807	1-218-670-11	METAL CHIP	120 0.5% 1/16W	R3915	1-218-644-11	METAL CHIP	10 0.5% 1/16W
R3808	1-218-670-11	METAL CHIP	120 0.5% 1/16W	R3916	1-218-644-11	METAL CHIP	10 0.5% 1/16W
R3809	1-218-670-11	METAL CHIP	120 0.5% 1/16W	R3917	1-218-644-11	METAL CHIP	10 0.5% 1/16W
R3810	1-218-670-11	METAL CHIP	120 0.5% 1/16W	R3923	1-412-363-21	FERRITE	0UH
R3811	1-216-809-11	RES-CHIP	100 5% 1/16W	R3933	1-216-864-11	SHORT	0
R3812	1-216-809-11	RES-CHIP	100 5% 1/16W	R3937	1-216-809-11	RES-CHIP	100 5% 1/16W
R3813	1-216-809-11	RES-CHIP	100 5% 1/16W	R3953	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3814	1-218-644-11	METAL CHIP	10 0.5% 1/16W	R3954	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3815	1-218-648-11	METAL CHIP	15 0.5% 1/16W	R3955	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3816	1-218-652-11	METAL CHIP	22 0.5% 1/16W	R3956	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3817	1-218-652-11	METAL CHIP	22 0.5% 1/16W	R3957	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3820	1-218-684-11	METAL CHIP	470 0.5% 1/16W	R3958	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3821	1-218-684-11	METAL CHIP	470 0.5% 1/16W	< NETWORK RESISTOR >			
R3822	1-218-684-11	METAL CHIP	470 0.5% 1/16W	RB3304	1-234-525-21	RES, CHIP NETWORK	56
R3823	1-216-826-11	RES-CHIP	2.7K 5% 1/16W	RB3305	1-234-525-21	RES, CHIP NETWORK	56



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
RB3306	1-234-525-21	RES, CHIP NETWORK 56		C2029	1-126-964-11	ELECT 10UF 20% 50V	
RB3307	1-234-525-21	RES, CHIP NETWORK 56		C2030	1-126-964-11	ELECT 10UF 20% 50V	
RB3401	1-234-524-21	RES, CHIP NETWORK 33		C2031	1-126-964-11	ELECT 10UF 20% 50V	
RB3402	1-234-524-21	RES, CHIP NETWORK 33		C2032	1-126-964-11	ELECT 10UF 20% 50V	
RB3403	1-234-524-21	RES, CHIP NETWORK 33		C2033	1-126-960-11	ELECT 1UF 20% 50V	
RB3404	1-234-524-21	RES, CHIP NETWORK 33		C2036	1-162-970-11	CERAMIC CHIP 0.01UF 10% 25V	
RB3405	1-234-524-21	RES, CHIP NETWORK 33		C2037	1-165-176-11	CERAMIC CHIP 0.047UF 10% 16V	
RB3406	1-234-524-21	RES, CHIP NETWORK 33		C2038	1-164-816-11	CERAMIC CHIP 220PF 2% 50V	
RB3407	1-239-409-11	RES, CHIP NETWORK 47 (3216)		C2040	1-126-933-11	ELECT 100UF 20% 16V	
RB3408	1-239-409-11	RES, CHIP NETWORK 47 (3216)		C2043	1-162-970-11	CERAMIC CHIP 0.01UF 10% 25V	
RB3409	1-239-409-11	RES, CHIP NETWORK 47 (3216)		C2044	1-126-933-11	ELECT 100UF 20% 16	
RB3410	1-239-409-11	RES, CHIP NETWORK 47 (3216)		C2045	1-162-970-11	CERAMIC CHIP 0.01UF 10% 25V	
RB3411	1-239-409-11	RES, CHIP NETWORK 47 (3216)		C2046	1-125-891-11	CERAMIC CHIP 0.47UF 10% 10V	
RB3412	1-239-409-11	RES, CHIP NETWORK 47 (3216)		C2048	1-125-891-11	CERAMIC CHIP 0.47UF 10% 10V	
RB3421	1-239-409-11	RES, CHIP NETWORK 47 (3216)		C2050	1-125-891-11	CERAMIC CHIP 0.47UF 10% 10V	
RB3422	1-239-409-11	RES, CHIP NETWORK 47 (3216)		C2052	1-162-970-11	CERAMIC CHIP 0.01UF 10% 25V	
RB3423	1-239-409-11	RES, CHIP NETWORK 47 (3216)		C2055	1-126-964-11	ELECT 10UF 20% 50V	
RB3424	1-239-409-11	RES, CHIP NETWORK 47 (3216)		C2056	1-125-891-11	CERAMIC CHIP 0.47UF 10% 10V	
RB3425	1-239-409-11	RES, CHIP NETWORK 47 (3216)		C2060	1-126-933-11	ELECT 100UF 20% 16V	
RB3426	1-239-409-11	RES, CHIP NETWORK 47 (3216)		C2061	1-126-964-11	ELECT 10UF 20% 50V	
RB3427	1-239-409-11	RES, CHIP NETWORK 47 (3216)		C2062	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V	
RB3428	1-239-409-11	RES, CHIP NETWORK 47 (3216)		C2069	1-162-970-11	CERAMIC CHIP 0.01UF 10% 25V	
< VIBRATOR >				C2083	1-128-551-11	ELECT 22UF 20% 25V	
X3089	1-781-945-21	VIBRATOR, CERAMIC		C2084	1-126-964-11	ELECT 10UF 20% 50V	
X3401	1-781-887-21	VIBRATOR, CRYSTAL		C2085	1-162-917-11	CERAMIC CHIP 15PF 5% 50V	
X3402	1-781-579-21	OSCILLATOR, CRYSTAL		C2087	1-164-160-11	CERAMIC CHIP 20PF 5% 50V	
*****				C2089	1-126-964-11	ELECT 10UF 20% 50V	
* A-1373-851-A U BOARD, COMPLETE				C2090	1-164-227-11	CERAMIC CHIP 0.022UF 10% 25V	
*****				C2091	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V	
< CAPACITOR >				C2092	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V	
C2001	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V		C2094	1-162-964-11	CERAMIC CHIP 0.001UF 10% 50V	
C2002	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V		C2096	1-162-917-11	CERAMIC CHIP 15PF 5% 50V	
C2003	1-126-935-11	ELECT 470UF 20% 16V		C2097	1-162-917-11	CERAMIC CHIP 15PF 5% 50V	
C2004	1-128-551-11	ELECT 22UF 20% 25V		C2098	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V	
C2005	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V		C2099	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V	
C2006	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V		C2102	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V	
C2007	1-126-964-11	ELECT 10UF 20% 50V		C2103	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V	
C2008	1-126-964-11	ELECT 10UF 20% 50V		C2111	1-126-964-11	ELECT 10UF 20% 50V	
C2012	1-126-964-11	ELECT 10UF 20% 50V		C2112	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V	
C2013	1-126-964-11	ELECT 10UF 20% 50V		C2113	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V	
C2014	1-126-960-11	ELECT 1UF 20% 50V		C2114	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V	
C2015	1-126-960-11	ELECT 1UF 20% 50V		C2122	1-126-964-11	ELECT 10UF 20% 50V	
C2016	1-126-964-11	ELECT 10UF 20% 50V		C2128	1-126-964-11	ELECT 10UF 20% 50V	
C2017	1-126-964-11	ELECT 10UF 20% 50V		C2301	1-130-495-00	MYLAR 0.1UF 5% 50V	
C2018	1-126-960-11	ELECT 1UF 20% 50V		C2302	1-130-495-00	MYLAR 0.1UF 5% 50V	
C2019	1-126-964-11	ELECT 10UF 20% 50V		C2303	1-162-968-11	CERAMIC CHIP 0.0047UF 10% 50V	
C2020	1-126-964-11	ELECT 10UF 20% 50V		C2304	1-128-551-11	ELECT 22UF 20% 25V	
C2021	1-126-960-11	ELECT 1UF 20% 50V		C2305	1-130-495-00	MYLAR 0.1UF 5% 50V	
C2022	1-126-960-11	ELECT 1UF 20% 50V		C2306	1-130-495-00	MYLAR 0.1UF 5% 50V	
C2023	1-126-964-11	ELECT 10UF 20% 50V		C2307	1-136-357-11	MYLAR 680PF 5% 50V	
C2024	1-126-964-11	ELECT 10UF 20% 50V		C2308	1-136-357-11	MYLAR 680PF 5% 50V	
C2025	1-126-960-11	ELECT 1UF 20% 50V		C2309	1-128-551-11	ELECT 22UF 20% 25V	
C2026	1-126-960-11	ELECT 1UF 20% 50V		C2310	1-126-947-11	ELECT 47UF 20% 25V	
C2027	1-128-551-11	ELECT 22UF 20% 25V		C2311	1-126-947-11	ELECT 47UF 20% 25V	
C2028	1-126-933-11	ELECT 100UF 20% 16V		C2312	1-126-947-11	ELECT 47UF 20% 25V	
				C2313	1-130-495-00	MYLAR 0.1UF 5% 50V	
				C2314	1-137-372-11	MYLAR 0.022UF 5% 50V	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C2315	1-137-372-11	MYLAR	0.022UF 5% 50V			< DIODE >	
C2316	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2001	8-719-110-17	RD10ESB2	
C2317	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2002	8-719-110-17	RD10ESB2	
C2318	1-137-374-11	MYLAR	0.047UF 5% 50V	D2003	8-719-110-17	RD10ESB2	
C2319	1-137-374-11	MYLAR	0.047UF 5% 50V	D2004	8-719-800-76	1SS226	
C2320	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2005	8-719-800-76	1SS226	
C2321	1-137-378-11	MYLAR	0.22UF 5% 50V	D2006	8-719-800-76	1SS226	
C2322	1-137-378-11	MYLAR	0.22UF 5% 50V	D2007	8-719-110-17	RD10ESB2	
C2323	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2008	8-719-110-17	RD10ESB2	
C2324	1-126-963-11	ELECT	4.7UF 20% 50V	D2009	8-719-800-76	1SS226	
C2325	1-126-963-11	ELECT	4.7UF 20% 50V	D2010	8-719-800-76	1SS226	
C2326	1-137-378-11	MYLAR	0.22UF 5% 50V	D2011	8-719-800-76	1SS226	
C2327	1-137-378-11	MYLAR	0.22UF 5% 50V	D2012	8-719-110-17	RD10ESB2	
C2328	1-126-934-11	ELECT	220UF 20% 16V	D2013	8-719-110-17	RD10ESB2	
C2329	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2014	8-719-110-17	RD10ESB2	
C2330	1-130-495-00	MYLAR	0.1UF 5% 50V	D2015	8-719-110-17	RD10ESB2	
C2331	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2016	8-719-110-17	RD10ESB2	
C2332	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2017	8-719-110-17	RD10ESB2	
C2333	1-126-933-11	ELECT	100UF 20% 16V	D2018	8-719-110-17	RD10ESB2	
C2334	1-126-933-11	ELECT	100UF 20% 16V	D2019	8-719-110-17	RD10ESB2	
C2335	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2020	8-719-110-17	RD10ESB2	
C2336	1-164-227-11	CERAMIC CHIP	0.022UF 10% 25V	D2021	8-719-110-17	RD10ESB2	
C2337	1-164-227-11	CERAMIC CHIP	0.022UF 10% 25V	D2022	8-719-110-17	RD10ESB2	
C2338	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2023	8-719-110-17	RD10ESB2	
C2339	1-164-172-11	CERAMIC CHIP	0.0056UF 10% 25V	D2024	8-719-110-17	RD10ESB2	
C2340	1-110-563-11	CERAMIC CHIP	0.068UF 10% 16V	D2025	8-719-110-17	RD10ESB2	
C2341	1-136-175-00	FILM	0.68UF 5% 50V	D2026	8-719-110-17	RD10ESB2	
C2342	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2027	8-719-110-17	RD10ESB2	
C2343	1-162-963-11	CERAMIC CHIP	680PF 10% 50V	D2029	8-719-110-17	RD10ESB2	
C2344	1-162-963-11	CERAMIC CHIP	680PF 10% 50V	D2030	8-719-110-17	RD10ESB2	
C2345	1-162-967-11	CERAMIC CHIP	0.0033UF 10% 50V	D2031	8-719-800-76	1SS226	
C2346	1-162-967-11	CERAMIC CHIP	0.0033UF 10% 50V	D2032	8-719-800-76	1SS226	
C2347	1-162-967-11	CERAMIC CHIP	0.0033UF 10% 50V	D2033	8-719-991-33	1SS133T-77	
C2348	1-126-947-11	ELECT	47UF 20% 25V	D2034	8-719-991-33	1SS133T-77	
C2349	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2035	8-719-110-17	RD10ESB2	
C2350	1-126-964-11	ELECT	10UF 20% 50V	D2039	8-719-110-17	RD10ESB2	
C2351	1-126-964-11	ELECT	10UF 20% 50V	D2040	8-719-800-76	1SS226	
C2353	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	D2041	8-719-800-76	1SS226	
C2354	1-137-368-11	MYLAR	0.0047UF 5% 50V	D2042	8-719-110-17	RD10ESB2	
C2355	1-137-150-11	MYLAR	0.01UF 5% 50V	D2043	8-719-800-76	1SS226	
C2356	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	D2044	8-719-800-76	1SS226	
C2357	1-126-933-11	ELECT	100UF 20% 16V			< FERRITE BEAD >	
C2358	1-126-933-11	ELECT	100UF 20% 16V	FB2001	1-414-760-21	FERRITE	0UH
C2359	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	FB2002	1-414-445-11	FERRITE	0UH
C2360	1-137-368-11	MYLAR	0.0047UF 5% 50V			< FILTER >	
C2364	1-126-964-11	ELECT	10UF 20% 50V	FL2001	1-239-848-11	FILTER, LOW PASS	
C2365	1-136-169-00	FILM	0.22UF 5% 50V	FL2002	1-239-848-11	FILTER, LOW PASS	
C2366	1-137-150-11	MYLAR	0.01UF 5% 50V	FL2003	1-239-848-11	FILTER, LOW PASS	
C2367	1-137-368-11	MYLAR	0.0047UF 5% 50V			< IC >	
C2368	1-136-169-00	FILM	0.22UF 5% 50V	IC2001	8-759-351-01	TEA6422DT	
C2369	1-126-964-11	ELECT	10UF 20% 50V	IC2003	8-759-100-96	UPC4558G2	
		< CONNECTOR >		IC2004	8-752-080-04	CXA2069Q	
CN2001*	1-793-923-11	CONNECTOR, DIN (PLUG) 64P		IC2007	8-752-394-69	CXD2073Q-T4	
CN2002*	1-564-526-11	PLUG, CONNECTOR 11P		IC2301	6-700-393-01	NJW1106FC2	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
IC2302	8-759-578-49	NJM2370U10-TE2		R2014	1-216-853-11	RES-CHIP	470K 5% 1/16W
IC2305	8-759-686-15	NJM2180M		R2015	1-216-853-11	RES-CHIP	470K 5% 1/16W
< JACK >				R2016	1-216-853-11	RES-CHIP	470K 5% 1/16W
J2001	1-573-967-12	BLOCK, (S) TERMINAL		R2017	1-218-665-11	METAL CHIP	75 0.5% 1/16W
J2002	1-764-143-11	JACK		R2018	1-216-853-11	RES-CHIP	470K 5% 1/16W
J2003	1-764-143-11	JACK		R2019	1-216-853-11	RES-CHIP	470K 5% 1/16W
J2004	1-750-517-21	JACK BLOCK, PIN 3P		R2020	1-218-665-11	METAL CHIP	75 0.5% 1/16W
J2005	1-815-015-11	JACK BLOCK, PIN		R2021	1-218-665-11	METAL CHIP	75 0.5% 1/16W
J2006	1-815-015-11	JACK BLOCK, PIN		R2022	1-218-665-11	METAL CHIP	75 0.5% 1/16W
J2007	1-750-516-21	JACK BLOCK, PIN 2P		R2023	1-216-853-11	RES-CHIP	470K 5% 1/16W
J2008	1-750-517-21	JACK BLOCK, PIN 3P		R2024	1-216-853-11	RES-CHIP	470K 5% 1/16W
< COIL >				R2025	1-218-665-11	METAL CHIP	75 0.5% 1/16W
L2301	1-469-555-21	INDUCTOR 10UH		R2026	1-218-665-11	METAL CHIP	75 0.5% 1/16W
L2302	1-469-555-21	INDUCTOR 10UH		R2027	1-218-665-11	METAL CHIP	75 0.5% 1/16W
< TRANSISTOR >				R2028	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2001	8-729-422-27	2SD601A-Q		R2029	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2002	8-729-026-49	2SA1037AK-T146-R		R2030	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2003	8-729-026-49	2SA1037AK-T146-R		R2031	1-216-841-11	RES-CHIP	47K 5% 1/16W
Q2004	8-729-422-27	2SD601A-Q		R2032	1-216-845-11	RES-CHIP	100K 5% 1/16W
Q2005	8-729-422-27	2SD601A-Q		R2034	1-216-803-11	RES-CHIP	33 5% 1/16W
Q2006	8-729-422-27	2SD601A-Q		R2035	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2007	8-729-422-27	2SD601A-Q		R2036	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2008	8-729-422-27	2SD601A-Q		R2037	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2009	8-729-422-27	2SD601A-Q		R2038	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2012	8-729-026-49	2SA1037AK-T146-R		R2039	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q2013	8-729-422-27	2SD601A-Q		R2040	1-216-857-11	RES-CHIP	1M 5% 1/16W
Q2015	8-729-422-27	2SD601A-Q		R2041	1-216-842-11	RES-CHIP	56K 5% 1/16W
Q2016	8-729-422-27	2SD601A-Q		R2042	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
Q2017	8-729-422-27	2SD601A-Q		R2043	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2019	8-729-026-49	2SA1037AK-T146-R		R2044	1-216-806-11	RES-CHIP	56 5% 1/16W
Q2020	8-729-422-27	2SD601A-Q		R2045	1-216-806-11	RES-CHIP	56 5% 1/16W
Q2021	8-729-026-49	2SA1037AK-T146-R		R2046	1-216-818-11	RES-CHIP	560 5% 1/16W
Q2022	8-729-422-27	2SD601A-Q		R2047	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2024	8-729-422-27	2SD601A-Q		R2048	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q2025	8-729-422-27	2SD601A-Q		R2049	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2026	8-729-026-49	2SA1037AK-T146-R		R2050	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q2027	8-729-026-49	2SA1037AK-T146-R		R2051	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2028	8-729-026-49	2SA1037AK-T146-R		R2052	1-216-817-11	RES-CHIP	470 5% 1/16W
Q2029	8-729-120-28	2SC1623-L5L6		R2053	1-216-817-11	RES-CHIP	470 5% 1/16W
< RESISTOR >				R2054	1-216-806-11	RES-CHIP	56 5% 1/16W
R2001	1-218-285-11	RES-CHIP 75	5% 1/16W	R2055	1-216-821-11	RES-CHIP	1K 5% 1/16W
R2002	1-216-853-11	RES-CHIP 470K	5% 1/16W	R2056	1-216-821-11	RES-CHIP	1K 5% 1/16W
R2003	1-218-665-11	METAL CHIP 75	0.5% 1/16W	R2057	1-216-806-11	RES-CHIP	56 5% 1/16W
R2004	1-218-665-11	METAL CHIP 75	0.5% 1/16W	R2058	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R2005	1-218-665-11	METAL CHIP 75	0.5% 1/16W	R2059	1-216-817-11	RES-CHIP	470 5% 1/16W
R2006	1-216-853-11	RES-CHIP 470K	5% 1/16W	R2060	1-216-817-11	RES-CHIP	470 5% 1/16W
R2007	1-216-853-11	RES-CHIP 470K	5% 1/16W	R2061	1-216-817-11	RES-CHIP	470 5% 1/16W
R2008	1-218-665-11	METAL CHIP 75	0.5% 1/16W	R2062	1-216-817-11	RES-CHIP	470 5% 1/16W
R2009	1-218-665-11	METAL CHIP 75	0.5% 1/16W	R2063	1-216-809-11	RES-CHIP	100 5% 1/16W
R2010	1-218-665-11	METAL CHIP 75	0.5% 1/16W	R2064	1-216-809-11	RES-CHIP	100 5% 1/16W
R2011	1-216-853-11	RES-CHIP 470K	5% 1/16W	R2065	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R2012	1-216-853-11	RES-CHIP 470K	5% 1/16W	R2066	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R2013	1-216-853-11	RES-CHIP 470K	5% 1/16W	R2067	1-216-809-11	RES-CHIP	100 5% 1/16W
				R2068	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
				R2069	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
				R2070	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
				R2071	1-216-809-11	RES-CHIP	100 5% 1/16W



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R2072	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R2164	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W
R2073	1-216-809-11	RES-CHIP	100 5% 1/16W	R2166	1-216-818-11	RES-CHIP	560 5% 1/16W
R2074	1-216-809-11	RES-CHIP	100 5% 1/16W	R2169	1-216-842-11	RES-CHIP	56K 5% 1/16W
R2075	1-216-809-11	RES-CHIP	100 5% 1/16W				
R2077	1-216-809-11	RES-CHIP	100 5% 1/16W	R2173	1-216-818-11	RES-CHIP	560 5% 1/16W
				R2174	1-218-686-11	METAL CHIP	560 0.5% 1/16W
R2080	1-216-809-11	RES-CHIP	100 5% 1/16W	R2175	1-216-817-11	RES-CHIP	470 5% 1/16W
R2081	1-216-809-11	RES-CHIP	100 5% 1/16W	R2176	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R2082	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R2177	1-216-809-11	RES-CHIP	100 5% 1/16W
R2084	1-216-809-11	RES-CHIP	100 5% 1/16W				
R2085	1-216-821-11	RES-CHIP	1K 5% 1/16W	R2178	1-218-676-11	METAL CHIP	220 0.5% 1/16W
				R2182	1-216-864-11	SHORT	0
R2086	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R2183	1-216-813-11	RES-CHIP	220 5% 1/16W
R2087	1-216-809-11	RES-CHIP	100 5% 1/16W	R2184	1-218-704-11	METAL CHIP	3.3K 0.5% 1/16W
R2089	1-216-809-11	RES-CHIP	100 5% 1/16W	R2185	1-218-684-11	METAL CHIP	470 0.5% 1/16W
R2090	1-216-821-11	RES-CHIP	1K 5% 1/16W				
R2091	1-216-806-11	RES-CHIP	56 5% 1/16W	R2186	1-218-688-11	METAL CHIP	680 0.5% 1/16W
				R2187	1-216-864-11	SHORT	0
R2092	1-216-806-11	RES-CHIP	56 5% 1/16W	R2193	1-216-809-11	RES-CHIP	100 5% 1/16W
R2094	1-216-864-11	SHORT	0	R2194	1-216-817-11	RES-CHIP	470 5% 1/16W
R2096	1-216-809-11	RES-CHIP	100 5% 1/16W	R2195	1-216-817-11	RES-CHIP	470 5% 1/16W
R2097	1-216-809-11	RES-CHIP	100 5% 1/16W				
R2098	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R2196	1-216-817-11	RES-CHIP	470 5% 1/16W
				R2197	1-216-817-11	RES-CHIP	470 5% 1/16W
R2099	1-216-809-11	RES-CHIP	100 5% 1/16W	R2198	1-216-853-11	RES-CHIP	470K 5% 1/16W
R2100	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R2199	1-216-853-11	RES-CHIP	470K 5% 1/16W
R2103	1-216-809-11	RES-CHIP	100 5% 1/16W	R2301	1-216-851-11	RES-CHIP	330K 5% 1/16W
R2104	1-216-809-11	RES-CHIP	100 5% 1/16W				
R2105	1-216-809-11	RES-CHIP	100 5% 1/16W	R2302	1-216-835-11	RES-CHIP	15K 5% 1/16W
				R2303	1-216-835-11	RES-CHIP	15K 5% 1/16W
R2107	1-216-807-11	RES-CHIP	68 5% 1/16W	R2304	1-216-861-11	RES-CHIP	2.2M 5% 1/16W
R2109	1-216-809-11	RES-CHIP	100 5% 1/16W	R2305	1-216-845-11	RES-CHIP	100K 5% 1/16W
R2110	1-216-809-11	RES-CHIP	100 5% 1/16W	R2306	1-216-861-11	RES-CHIP	2.2M 5% 1/16W
R2111	1-216-825-11	RES-CHIP	2.2K 5% 1/16W				
R2113	1-216-821-11	RES-CHIP	1K 5% 1/16W	R2307	1-216-831-11	RES-CHIP	6.8K 5% 1/16W
				R2308	1-216-841-11	RES-CHIP	47K 5% 1/16W
R2116	1-216-832-11	RES-CHIP	8.2K 5% 1/16W	R2309	1-216-831-11	RES-CHIP	6.8K 5% 1/16W
R2118	1-216-821-11	RES-CHIP	1K 5% 1/16W	R2310	1-216-841-11	RES-CHIP	47K 5% 1/16W
R2121	1-216-809-11	RES-CHIP	100 5% 1/16W	R2311	1-216-837-11	RES-CHIP	22K 5% 1/16W
R2122	1-216-821-11	RES-CHIP	1K 5% 1/16W				
R2123	1-218-684-11	METAL CHIP	470 0.5% 1/16W	R2312	1-216-837-11	RES-CHIP	22K 5% 1/16W
				R2313	1-216-832-11	RES-CHIP	8.2K 5% 1/16W
R2124	1-216-821-11	RES-CHIP	1K 5% 1/16W	R2314	1-216-832-11	RES-CHIP	8.2K 5% 1/16W
R2125	1-218-702-11	METAL CHIP	2.7K 0.5% 1/16W	R2316	1-216-841-11	RES-CHIP	47K 5% 1/16W
R2128	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R2317	1-216-845-11	RES-CHIP	100K 5% 1/16W
R2130	1-216-809-11	RES-CHIP	100 5% 1/16W				
R2131	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R2318	1-216-809-11	RES-CHIP	100 5% 1/16W
				R2319	1-216-841-11	RES-CHIP	47K 5% 1/16W
R2132	1-216-833-11	RES-CHIP	10K 5% 1/16W	R2320	1-216-809-11	RES-CHIP	100 5% 1/16W
R2133	1-218-674-11	METAL CHIP	180 0.5% 1/16W	R2321	1-216-833-11	RES-CHIP	10K 5% 1/16W
R2136	1-216-816-11	RES-CHIP	390 5% 1/16W	R2322	1-216-835-11	RES-CHIP	15K 5% 1/16W
R2137	1-218-700-11	METAL CHIP	2.2K 0.5% 1/16W				
R2138	1-216-809-11	RES-CHIP	100 5% 1/16W	R2323	1-216-857-11	RES-CHIP	1M 5% 1/16W
				R2326	1-216-864-11	SHORT	0
R2142	1-216-815-11	RES-CHIP	330 5% 1/16W	R2327	1-216-864-11	SHORT	0
R2147	1-216-814-11	RES-CHIP	270 5% 1/16W	R2328	1-216-833-11	RES-CHIP	10K 5% 1/16W
R2148	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W	R2329	1-216-851-11	RES-CHIP	330K 5% 1/16W
R2149	1-216-817-11	RES-CHIP	470 5% 1/16W				
R2150	1-216-821-11	RES-CHIP	1K 5% 1/16W	R2332	1-216-837-11	RES-CHIP	22K 5% 1/16W
				R2333	1-216-836-11	RES-CHIP	18K 5% 1/16W
R2151	1-218-698-11	METAL CHIP	1.8K 0.5% 1/16W	R2334	1-216-833-11	RES-CHIP	10K 5% 1/16W
R2152	1-218-694-11	METAL CHIP	1.2K 0.5% 1/16W	R2335	1-216-835-11	RES-CHIP	15K 5% 1/16W
R2153	1-216-821-11	RES-CHIP	1K 5% 1/16W	R2336	1-216-831-11	RES-CHIP	6.8K 5% 1/16W
R2155	1-216-837-11	RES-CHIP	22K 5% 1/16W				
R2156	1-216-841-11	RES-CHIP	47K 5% 1/16W	R2337	1-216-833-11	RES-CHIP	10K 5% 1/16W
				R2338	1-216-835-11	RES-CHIP	15K 5% 1/16W
R2157	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R2340	1-216-831-11	RES-CHIP	6.8K 5% 1/16W
R2159	1-216-832-11	RES-CHIP	8.2K 5% 1/16W	R2341	1-216-864-11	SHORT	0



REF. NO.	PART NO.	DESCRIPTION	REMARK			REF. NO.	PART NO.	DESCRIPTION	REMARK		
R2343	1-216-864-11	SHORT	0			C1631	1-126-933-11	ELECT	100UF	20%	16V
R2353	1-216-823-11	RES-CHIP	1.5K	5%	1/16W	C1632	1-164-156-11	CERAMIC CHIP	0.1UF		25V
R2354	1-216-841-11	RES-CHIP	47K	5%	1/16W	C1633	1-164-156-11	CERAMIC CHIP	0.1UF		25V
R2355	1-218-890-11	RES-CHIP	62K	5%	1/16W	C1634	1-126-963-11	ELECT	4.7UF	20%	50V
R2356	1-216-842-11	RES-CHIP	56K	5%	1/16W	C1635	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
R2357	1-216-833-11	RES-CHIP	10K	5%	1/16W	C1636	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
						C1637	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
R2358	1-216-839-11	RES-CHIP	33K	5%	1/16W	C1638	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
R2359	1-216-824-11	RES-CHIP	1.8K	5%	1/16W	C1639	1-126-933-11	ELECT	100UF	20%	16V
R2360	1-216-861-11	RES-CHIP	2.2M	5%	1/16W						
R2365	1-216-833-11	RES-CHIP	10K	5%	1/16W	C1640	1-126-933-11	ELECT	100UF	20%	16V
R2366	1-216-829-11	RES-CHIP	4.7K	5%	1/16W						
R2374	1-216-864-11	SHORT	0			C1641	1-164-156-11	CERAMIC CHIP	0.1UF		25V
R2376	1-216-864-11	SHORT	0			C1643	1-164-156-11	CERAMIC CHIP	0.1UF		25V
R2377	1-216-829-11	RES-CHIP	4.7K	5%	1/16W						
R2379	1-216-842-11	RES-CHIP	56K	5%	1/16W	C1644	1-164-156-11	CERAMIC CHIP	0.1UF		25V
R2380	1-216-821-11	RES-CHIP	1K	5%	1/16W	C1645	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
						C1646	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
R2384	1-216-833-11	RES-CHIP	10K	5%	1/16W	C1647	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V
R2385	1-216-835-11	RES-CHIP	15K	5%	1/16W	C1649	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V
R2386	1-216-837-11	RES-CHIP	22K	5%	1/16W						
R2387	1-216-821-11	RES-CHIP	1K	5%	1/16W	C1651	1-164-156-11	CERAMIC CHIP	0.1UF		25V
R2389	1-216-864-11	SHORT	0			C1652	1-164-156-11	CERAMIC CHIP	0.1UF		25V
						C1656	1-164-156-11	CERAMIC CHIP	0.1UF		25V
R2390	1-216-847-11	RES-CHIP	150K	5%	1/16W	C1657	1-164-156-11	CERAMIC CHIP	0.1UF		25V
*****						C1658	1-164-156-11	CERAMIC CHIP	0.1UF		25V
* A-1299-523-A AD BOARD, COMPLETE											
*****						C1659	1-164-156-11	CERAMIC CHIP	0.1UF		25V
< CAPACITOR >						C1661	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1601	1-126-933-11	ELECT	100UF	20%	16V	C1663	1-126-933-11	ELECT	100UF	20%	16V
C1604	1-164-156-11	CERAMIC CHIP	0.1UF		25V	C1664	1-126-933-11	ELECT	100UF	20%	16V
C1605	1-164-156-11	CERAMIC CHIP	0.1UF		25V	C1665	1-126-933-11	ELECT	100UF	20%	16V
C1606	1-164-156-11	CERAMIC CHIP	0.1UF		25V						
C1607	1-126-933-11	ELECT	100UF	20%	16V	C1666	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
						C1668	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1608	1-164-156-11	CERAMIC CHIP	0.1UF		25V	C1669	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C1609	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V	C1670	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1610	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C1671	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1611	1-164-156-11	CERAMIC CHIP	0.1UF		25V						
C1612	1-164-156-11	CERAMIC CHIP	0.1UF		25V	C1672	1-164-156-11	CERAMIC CHIP	0.1UF		25V
						C1673	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C1613	1-164-156-11	CERAMIC CHIP	0.1UF		25V	C1674	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
C1614	1-164-156-11	CERAMIC CHIP	0.1UF		25V	C1675	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
C1615	1-164-156-11	CERAMIC CHIP	0.1UF		25V	C1676	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V
C1616	1-164-156-11	CERAMIC CHIP	0.1UF		25V						
C1617	1-164-156-11	CERAMIC CHIP	0.1UF		25V	C1677	1-126-933-11	ELECT	100UF	20%	16V
						C1678	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V
C1618	1-126-933-11	ELECT	100UF	20%	16V	C1680	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1619	1-164-156-11	CERAMIC CHIP	0.1UF		25V	C1681	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1620	1-162-920-11	CERAMIC CHIP	27PF	5%	50V	C1682	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1621	1-164-156-11	CERAMIC CHIP	0.1UF		25V						
C1622	1-162-917-11	CERAMIC CHIP	15PF	5%	50V	C1683	1-164-156-11	CERAMIC CHIP	0.1UF		25V
						C1684	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1623	1-162-915-11	CERAMIC CHIP	10PF	0.50PF	50V	C1685	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1624	1-162-915-11	CERAMIC CHIP	10PF	0.50PF	50V	C1688	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1625	1-164-156-11	CERAMIC CHIP	0.1UF		25V	C1690	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1626	1-164-156-11	CERAMIC CHIP	0.1UF		25V						
C1627	1-164-156-11	CERAMIC CHIP	0.1UF		25V	C1691	1-126-933-11	ELECT	100UF	20%	16V
						C1692	1-126-933-11	ELECT	100UF	20%	16V
C1628	1-164-156-11	CERAMIC CHIP	0.1UF		25V	C1693	1-126-933-11	ELECT	100UF	20%	16V
C1629	1-164-156-11	CERAMIC CHIP	0.1UF		25V	C1694	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1630	1-164-156-11	CERAMIC CHIP	0.1UF		25V	C1695	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
						C1696	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
						C1697	1-164-156-11	CERAMIC CHIP	0.1UF		25V
						C1698	1-164-156-11	CERAMIC CHIP	0.1UF		25V



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C1699	1-164-156-11	CERAMIC CHIP	0.1UF 25V	< IC >			
C1700	1-164-156-11	CERAMIC CHIP	0.1UF 25V	IC1601	8-759-683-55	IC CM0017AF	
C1701	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V	IC1602	8-759-830-08	IC NJM2068V-TE2	
C1704	1-126-933-11	ELECT	100UF 20% 16V	IC1603	8-759-830-08	IC NJM2068V-TE2	
C1707	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	IC1605	8-759-352-91	PST9143NL	
C1708	1-162-966-11	CERAMIC CHIP	0.0022UF 10% 50V	IC1606	8-752-925-71	IC CXP86448-635Q	
C1709	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	IC1607	8-759-682-41	M24C32-WMN6T(A)	
C1711	1-162-966-11	CERAMIC CHIP	0.0022UF 10% 50V	IC1608	8-759-829-87	IC CD0031AM	
C1712	1-164-156-11	CERAMIC CHIP	0.1UF 25V	IC1609	8-759-830-08	IC NJM2068V-TE2	
C1714	1-164-156-11	CERAMIC CHIP	0.1UF 25V	IC1610	8-759-830-08	IC NJM2068V-TE2	
C1715	1-164-156-11	CERAMIC CHIP	0.1UF 25V	IC1611	8-759-830-08	IC NJM2068V-TE2	
C1717	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	IC1612	8-759-830-08	IC NJM2068V-TE2	
C1718	1-164-156-11	CERAMIC CHIP	0.1UF 25V	< COIL >			
C1720	1-162-910-11	CERAMIC CHIP	5PF 0.25PF50V	L1601	1-469-555-21	INDUCTOR	10UH
C1721	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	L1602	1-469-555-21	INDUCTOR	10UH
C1722	1-162-910-11	CERAMIC CHIP	5PF 0.25PF50V	< TRANSISTOR >			
C1730	1-126-916-11	ELECT	1000UF 20% 6.3V	Q1603	8-729-422-27	2SD601A-Q	
C1731	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	Q1604	8-729-422-27	2SD601A-Q	
C1732	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	Q1605	8-729-422-27	2SD601A-Q	
C1733	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	Q1606	8-729-422-27	2SD601A-Q	
C1734	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	< RESISTOR >			
< CONNECTOR >				R1600	1-216-833-11	RES-CHIP	10K 5% 1/16W
CN1601	1-573-301-21	CONNECTOR, BOARD TO BOARD 20P		R1601	1-216-841-11	RES-CHIP	47K 5% 1/16W
CN1602	1-573-301-21	CONNECTOR, BOARD TO BOARD 20P		R1604	1-216-833-11	RES-CHIP	10K 5% 1/16W
< DIODE >				R1605	1-216-821-11	RES-CHIP	1K 5% 1/16W
D1601	8-719-404-50	MA111-TX		R1606	1-216-821-11	RES-CHIP	1K 5% 1/16W
D1603	8-719-404-50	MA111-TX		R1607	1-216-821-11	RES-CHIP	1K 5% 1/16W
D1604	8-719-069-54	UDZSTE-175.1B		R1608	1-216-809-11	RES-CHIP	100 5% 1/16W
D1605	8-719-069-54	UDZSTE-175.1B		R1609	1-216-809-11	RES-CHIP	100 5% 1/16W
D1606	8-719-069-54	UDZSTE-175.1B		R1611	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
D1607	8-719-069-54	UDZSTE-175.1B		R1614	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
D1691	8-719-404-50	MA111-TX		R1615	1-216-821-11	RES-CHIP	1K 5% 1/16W
D1692	8-719-404-50	MA111-TX		R1618	1-216-809-11	RES-CHIP	100 5% 1/16W
D1693	8-719-404-50	MA111-TX		R1619	1-216-864-11	SHORT	0
< FERRITE BEAD >				R1620	1-216-809-11	RES-CHIP	100 5% 1/16W
FB1601	1-414-445-11	FERRITE	0UH	R1621	1-216-821-11	RES-CHIP	1K 5% 1/16W
FB1602	1-414-445-11	FERRITE	0UH	R1622	1-216-817-11	RES-CHIP	470 5% 1/16W
FB1603	1-414-445-11	FERRITE	0UH	R1623	1-216-821-11	RES-CHIP	1K 5% 1/16W
FB1604	1-414-445-11	FERRITE	0UH	R1625	1-216-821-11	RES-CHIP	1K 5% 1/16W
FB1605	1-414-445-11	FERRITE	0UH	R1627	1-216-821-11	RES-CHIP	1K 5% 1/16W
FB1606	1-414-445-11	FERRITE	0UH	R1634	1-216-809-11	RES-CHIP	100 5% 1/16W
FB1607	1-414-445-11	FERRITE	0UH	R1635	1-216-809-11	RES-CHIP	100 5% 1/16W
FB1608	1-414-445-11	FERRITE	0UH	R1636	1-216-833-11	RES-CHIP	10K 5% 1/16W
FB1609	1-414-445-11	FERRITE	0UH	R1637	1-216-821-11	RES-CHIP	1K 5% 1/16W
FB1610	1-414-445-11	FERRITE	0UH	R1638	1-216-821-11	RES-CHIP	1K 5% 1/16W
FB1611	1-414-445-11	FERRITE	0UH	R1639	1-216-809-11	RES-CHIP	100 5% 1/16W
FB1612	1-414-445-11	FERRITE	0UH	R1640	1-216-837-11	RES-CHIP	22K 5% 1/16W
FB1613	1-414-445-11	FERRITE	0UH	R1641	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
FB1614	1-414-445-11	FERRITE	0UH	R1642	1-216-821-11	RES-CHIP	1K 5% 1/16W
FB1615	1-414-445-11	FERRITE	0UH	R1643	1-216-821-11	RES-CHIP	1K 5% 1/16W
FB1616	1-414-445-11	FERRITE	0UH	R1644	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
FB1617	1-414-445-11	FERRITE	0UH	R1645	1-216-815-11	RES-CHIP	330 5% 1/16W
				R1646	1-216-825-11	RES-CHIP	2.2K 5% 1/16W



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1647	1-216-833-11	RES-CHIP	10K 5% 1/16W	R1713	1-216-833-11	RES-CHIP	10K 5% 1/16W
R1648	1-216-809-11	RES-CHIP	100 5% 1/16W				
R1649	1-216-809-11	RES-CHIP	100 5% 1/16W	R1714	1-216-833-11	RES-CHIP	10K 5% 1/16W
R1650	1-216-815-11	RES-CHIP	330 5% 1/16W			< NETWORK RESISTOR >	
R1651	1-216-815-11	RES-CHIP	330 5% 1/16W	RB1603	1-233-576-11	RES, CHIP NETWORK	100
R1652	1-216-821-11	RES-CHIP	1K 5% 1/16W	RB1604	1-233-576-11	RES, CHIP NETWORK	100
R1653	1-216-817-11	RES-CHIP	470 5% 1/16W	RB1605	1-233-576-11	RES, CHIP NETWORK	100
R1654	1-216-829-11	RES-CHIP	4.7K 5% 1/16W			< VIBRATOR >	
R1655	1-218-700-11	METAL CHIP	2.2K 0.5% 1/16W	X1601	1-767-925-21	VIBRATOR, CRYSTAL	
R1656	1-218-692-11	METAL CHIP	1K 0.5% 1/16W			*****	
R1657	1-216-821-11	RES-CHIP	1K 5% 1/16W			* A-1272-481-A A BOARD, COMPLETE	
R1658	1-216-837-11	RES-CHIP	22K 5% 1/16W			*****	
R1659	1-216-837-11	RES-CHIP	22K 5% 1/16W			4-382-854-11 SCREW (M3X10), P, SW (+)	
R1660	1-216-821-11	RES-CHIP	1K 5% 1/16W			< CAPACITOR >	
R1661	1-216-821-11	RES-CHIP	1K 5% 1/16W	C1	1-126-933-11	ELECT	100UF 20% 16V
R1662	1-216-827-11	RES-CHIP	3.3K 5% 1/16W	C2	1-104-665-11	ELECT	100UF 20% 25V
R1663	1-216-818-11	RES-CHIP	560 5% 1/16W	C3	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R1665	1-218-692-11	METAL CHIP	1K 0.5% 1/16W	C4	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R1666	1-218-692-11	METAL CHIP	1K 0.5% 1/16W	C5	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R1667	1-218-692-11	METAL CHIP	1K 0.5% 1/16W	C6	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R1668	1-218-692-11	METAL CHIP	1K 0.5% 1/16W	C7	1-126-933-11	ELECT	100UF 20% 16V
R1669	1-218-724-11	METAL CHIP	22K 0.5% 1/16W	C8	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R1670	1-218-724-11	METAL CHIP	22K 0.5% 1/16W	C9	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V
R1671	1-218-724-11	METAL CHIP	22K 0.5% 1/16W	C10	1-162-974-11	CERAMIC CHIP	0.01UF 50V
R1672	1-218-724-11	METAL CHIP	22K 0.5% 1/16W	C11	1-126-933-11	ELECT	100UF 20% 16V
R1673	1-218-716-11	METAL CHIP	10K 0.5% 1/16W	C12	1-126-933-11	ELECT	100UF 20% 16V
R1674	1-218-716-11	METAL CHIP	10K 0.5% 1/16W	C13	1-164-392-11	CERAMIC CHIP	390PF 5% 50V
R1675	1-218-716-11	METAL CHIP	10K 0.5% 1/16W	C14	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R1676	1-216-821-11	RES-CHIP	1K 5% 1/16W	C15	1-164-392-11	CERAMIC CHIP	390PF 5% 50V
R1681	1-218-716-11	METAL CHIP	10K 0.5% 1/16W	C16	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
R1682	1-218-692-11	METAL CHIP	1K 0.5% 1/16W	C17	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R1683	1-218-692-11	METAL CHIP	1K 0.5% 1/16W	C18	1-162-975-11	CERAMIC CHIP	24PF 5% 50V
R1684	1-218-692-11	METAL CHIP	1K 0.5% 1/16W	C19	1-162-975-11	CERAMIC CHIP	24PF 5% 50V
R1685	1-218-692-11	METAL CHIP	1K 0.5% 1/16W	C20	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R1690	1-218-724-11	METAL CHIP	22K 0.5% 1/16W	C21	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R1691	1-218-724-11	METAL CHIP	22K 0.5% 1/16W	C22	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R1692	1-218-724-11	METAL CHIP	22K 0.5% 1/16W	C23	1-162-974-11	CERAMIC CHIP	0.01UF 50V
R1693	1-218-724-11	METAL CHIP	22K 0.5% 1/16W	C24	1-126-947-11	ELECT	47UF 20% 16V
R1694	1-218-716-11	METAL CHIP	10K 0.5% 1/16W	C26	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R1695	1-218-716-11	METAL CHIP	10K 0.5% 1/16W	C27	1-126-947-11	ELECT	47UF 20% 16V
R1696	1-218-716-11	METAL CHIP	10K 0.5% 1/16W	C28	1-162-974-11	CERAMIC CHIP	0.01UF 50V
R1697	1-218-716-11	METAL CHIP	10K 0.5% 1/16W	C29	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R1698	1-218-692-11	METAL CHIP	1K 0.5% 1/16W	C30	1-162-974-11	CERAMIC CHIP	0.01UF 50V
R1699	1-218-692-11	METAL CHIP	1K 0.5% 1/16W	C31	1-126-947-11	ELECT	47UF 20% 16V
R1700	1-218-692-11	METAL CHIP	1K 0.5% 1/16W	C33	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R1701	1-218-692-11	METAL CHIP	1K 0.5% 1/16W	C34	1-162-974-11	CERAMIC CHIP	0.01UF 50V
R1702	1-218-724-11	METAL CHIP	22K 0.5% 1/16W	C35	1-126-947-11	ELECT	47UF 20% 16V
R1703	1-218-724-11	METAL CHIP	22K 0.5% 1/16W	C36	1-126-934-11	ELECT	220UF 20% 10V
R1704	1-218-724-11	METAL CHIP	22K 0.5% 1/16W	C37	1-162-974-11	CERAMIC CHIP	0.01UF 50V
R1705	1-218-716-11	METAL CHIP	10K 0.5% 1/16W	C38	1-162-974-11	CERAMIC CHIP	0.01UF 50V
R1706	1-218-724-11	METAL CHIP	22K 0.5% 1/16W	C39	1-164-156-11	CERAMIC CHIP	0.1UF 25V
R1707	1-218-716-11	METAL CHIP	10K 0.5% 1/16W	C40	1-162-974-11	CERAMIC CHIP	0.01UF 50V
R1708	1-218-716-11	METAL CHIP	10K 0.5% 1/16W				
R1709	1-218-716-11	METAL CHIP	10K 0.5% 1/16W				
R1710	1-216-864-11	SHORT	0				
R1711	1-216-833-11	RES-CHIP	10K 5% 1/16W				
R1712	1-216-833-11	RES-CHIP	10K 5% 1/16W				

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C41	1-126-934-11	ELECT	220UF 20% 10V	C106	1-126-933-11	ELECT	100UF 20% 16V
C42	1-162-974-11	CERAMIC CHIP	0.01UF 50V	C108	1-162-917-11	CERAMIC CHIP	15PF 5% 50V
C43	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C109	1-162-917-11	CERAMIC CHIP	15PF 5% 50V
C44	1-126-947-11	ELECT	47UF 20% 16V	C110	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C45	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V	C111	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C46	1-162-974-11	CERAMIC CHIP	0.01UF 50V	C112	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C47	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V	C113	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C49	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C115	1-162-917-11	CERAMIC CHIP	15PF 5% 50V
C50	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	C116	1-162-917-11	CERAMIC CHIP	15PF 5% 50V
C51	1-126-947-11	ELECT	47UF 20% 16V	C119	1-126-933-11	ELECT	100UF 20% 16V
C52	1-162-974-11	CERAMIC CHIP	0.01UF 50V	C120	1-126-933-11	ELECT	100UF 20% 16V
C53	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C123	1-162-966-11	CERAMIC CHIP	0.0022UF 10% 50V
C54	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V	C124	1-164-346-11	CERAMIC CHIP	1UF 16V
C55	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V	C125	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C56	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C128	1-162-960-11	CERAMIC CHIP	220PF 10% 50V
C57	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C129	1-165-176-11	CERAMIC CHIP	0.047UF 10% 16V
C59	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C130	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V
C60	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C131	1-126-961-11	ELECT	2.2UF 20% 50V
C61	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C132	1-126-935-11	ELECT	470UF 20% 16V
C62	1-126-947-11	ELECT	47UF 20% 16V	C133	1-126-964-11	ELECT	10UF 20% 50V
C63	1-126-935-11	ELECT	470UF 20% 6.3V	C134	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C65	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C135	1-126-964-11	ELECT	10UF 20% 50V
C66	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C136	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C67	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C137	1-126-964-11	ELECT	10UF 20% 50V
C68	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C138	1-126-964-11	ELECT	10UF 20% 50V
C69	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C139	1-126-964-11	ELECT	10UF 20% 50V
C70	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C140	1-126-933-11	ELECT	100UF 20% 16V
C73	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C141	1-126-933-11	ELECT	100UF 20% 16V
C74	1-126-964-11	ELECT	10UF 20% 50V	C142	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C75	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C143	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C76	1-162-966-11	CERAMIC CHIP	0.0022UF 10% 50V	C144	1-126-964-11	ELECT	10UF 20% 50V
C77	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C145	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V
C78	1-104-665-11	ELECT	100UF 20% 25V	C301	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V
C79	1-126-933-11	ELECT	100UF 20% 16V	C302	1-125-837-91	CERAMIC CHIP	1UF 10% 6.3V
C80	1-126-967-11	ELECT	47UF 20% 50V	C303	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C81	1-104-665-11	ELECT	100UF 20% 10V	C304	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
C82	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C305	1-162-917-11	CERAMIC CHIP	15PF 5% 50V
C83	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C306	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C84	1-126-933-11	ELECT	100UF 20% 16V	C307	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C85	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C308	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C86	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V	C309	1-126-933-11	ELECT	100UF 20% 16V
C87	1-126-960-11	ELECT	1UF 20% 50V	C310	1-126-964-11	ELECT	10UF 20% 50V
C88	1-126-933-11	ELECT	100UF 20% 16V	C311	1-126-933-11	ELECT	100UF 20% 16V
C90	1-126-964-11	ELECT	10UF 20% 50V	C312	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C92	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C313	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C93	1-126-964-11	ELECT	10UF 20% 50V	C314	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C94	1-164-346-11	CERAMIC CHIP	1UF 16V	C315	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C95	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V	C316	1-162-964-11	CERAMIC CHIP	0.001UF 10% 50V
C96	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C317	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C97	1-164-315-11	CERAMIC CHIP	470PF 5% 50V	C318	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C98	1-126-960-11	ELECT	1UF 20% 50V	C319	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C99	1-165-176-11	CERAMIC CHIP	0.047UF 10% 16V	C320	1-126-963-11	ELECT	4.7UF 20% 50V
C101	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	C321	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C102	1-126-964-11	ELECT	10UF 20% 50V	C322	1-126-933-11	ELECT	100UF 20% 16V
C103	1-126-964-11	ELECT	10UF 20% 50V	C323	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C104	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C324	1-125-837-91	CERAMIC CHIP	1UF 10% 6.3V
C105	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C325	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C326	1-164-315-11	CERAMIC CHIP	470PF 5% 50V	C383	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C327	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	C384	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C328	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C385	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V
C329	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C386	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C330	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V	C387	1-126-964-11	ELECT	10UF 20% 50V
C331	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C388	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C332	1-126-964-11	ELECT	10UF 20% 50V	C389	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C333	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C390	1-126-964-11	ELECT	10UF 20% 50V
C334	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C391	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C335	1-126-933-11	ELECT	100UF 20% 16V	C392	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C336	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C393	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C337	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C394	1-126-933-11	ELECT	100UF 20% 16V
C338	1-126-963-11	ELECT	4.7UF 20% 50V	C395	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C339	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C396	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C340	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C397	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C341	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V	C398	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C342	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C399	1-162-917-11	CERAMIC CHIP	15PF 5% 50V
C343	1-126-963-11	ELECT	4.7UF 20% 50V	C400	1-126-933-11	ELECT	100UF 20% 16V
C344	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C401	1-162-917-11	CERAMIC CHIP	15PF 5% 50V
C345	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C402	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C346	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C403	1-126-947-11	ELECT	47UF 20% 16V
C347	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C404	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C348	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C405	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C349	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C406	1-127-760-11	CERAMIC CHIP	4.7UF 10% 6.3V
C350	1-126-935-11	ELECT	470UF 20% 16V	C407	1-127-760-11	CERAMIC CHIP	4.7UF 10% 6.3V
C351	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C408	1-127-760-11	CERAMIC CHIP	4.7UF 10% 6.3V
C352	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C410	1-126-934-11	ELECT	220UF 20% 16V
C353	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C411	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C354	1-126-963-11	ELECT	4.7UF 20% 50V	C412	1-125-837-91	CERAMIC CHIP	1UF 10% 6.3V
C355	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C413	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C356	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C414	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V
C357	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C415	1-125-837-91	CERAMIC CHIP	1UF 10% 6.3V
C358	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	C416	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C359	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C417	1-126-933-11	ELECT	100UF 20% 16V
C360	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	C418	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C361	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C419	1-126-933-11	ELECT	100UF 20% 16V
C362	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C420	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C363	1-126-933-11	ELECT	100UF 20% 16V	C421	1-162-964-11	CERAMIC CHIP	0.001UF 10% 50V
C364	1-126-933-11	ELECT	100UF 20% 16V	C422	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C365	1-126-933-11	ELECT	100UF 20% 16V	C423	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C366	1-125-837-91	CERAMIC CHIP	1UF 10% 6.3V	C426	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C367	1-125-837-91	CERAMIC CHIP	1UF 10% 6.3V	C430	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C368	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C431	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C369	1-126-933-11	ELECT	100UF 20% 16V	C435	1-126-933-11	ELECT	100UF 20% 16V
C370	1-126-933-11	ELECT	100UF 20% 16V	C438	1-126-933-11	ELECT	100UF 20% 16V
C371	1-126-933-11	ELECT	100UF 20% 16V	C439	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C372	1-126-933-11	ELECT	100UF 20% 16V	C440	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C373	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C442	1-135-834-91	CERAMIC CHIP	2.2E+06PF 6.3V
C374	1-126-933-11	ELECT	100UF 20% 16V	C443	1-126-933-11	ELECT	100UF 20% 16V
C375	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C444	1-110-563-11	CERAMIC CHIP	0.068UF 10% 16V
C376	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C449	1-125-837-91	CERAMIC CHIP	1UF 10% 6.3V
C377	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C455	1-130-495-00	MYLAR	0.1UF 5% 50V
C378	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C457	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C379	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C458	1-136-244-11	FILM	0.1UF 5% 50V
C380	1-162-964-11	CERAMIC CHIP	0.001UF 10% 50V	C460	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C381	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C461	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C382	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V				

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C463	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C739	1-126-963-11	ELECT	4.7UF 20% 50V
C464	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C740	1-126-963-11	ELECT	4.7UF 20% 50V
C466	1-162-923-11	CERAMIC CHIP	47PF 5% 50V	C741	1-126-963-11	ELECT	4.7UF 20% 50V
C467	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C742	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C468	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C745	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C470	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V	C746	1-126-947-11	ELECT	47UF 20% 25V
C472	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C747	1-126-947-11	ELECT	47UF 20% 25V
C476	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C749	1-126-947-11	ELECT	47UF 20% 25V
C477	1-127-760-11	CERAMIC CHIP	4.7UF 10% 6.3V	C750	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C478	1-216-864-11	SHORT	0	C751	1-126-943-11	ELECT	2200UF 20% 25V
C479	1-162-923-11	CERAMIC CHIP	47PF 5% 50V	C752	1-126-943-11	ELECT	2200UF 20% 25V
C480	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C754	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V
C481	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C755	1-126-947-11	ELECT	47UF 20% 25V
C482	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C756	1-126-964-11	ELECT	10UF 20% 50V
C483	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V	C757	1-130-495-00	MYLAR	0.1UF 5% 50V
C484	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C758	1-126-947-11	ELECT	47UF 20% 25V
C485	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C759	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C486	1-115-467-11	CERAMIC CHIP	0.22UF 10% 10V	C760	1-126-933-11	ELECT	100UF 20% 16V
C487	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C761	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C488	1-126-933-11	ELECT	100UF 20% 16V	C762	1-104-665-11	ELECT	100UF 20% 25V
C489	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C764	1-130-495-00	MYLAR	0.1UF 5% 50V
C490	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C765	1-126-933-11	ELECT	100UF 20% 16V
C494	1-126-933-11	ELECT	100UF 20% 16V	C766	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C495	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C768	1-164-218-11	CERAMIC CHIP	180PF 5% 50V
C497	1-126-933-11	ELECT	100UF 20% 16V	C769	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C498	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C770	1-162-928-11	CERAMIC CHIP	120PF 5% 50V
C500	1-164-816-11	CERAMIC CHIP	220PF 2% 50V	C771	1-130-495-00	MYLAR	0.1UF 5% 50V
C501	1-162-974-11	CERAMIC CHIP	0.01UF 50V	C772	1-130-495-00	MYLAR	0.1UF 5% 50V
C502	1-164-816-11	CERAMIC CHIP	220PF 2% 50V	C773	1-164-677-11	CERAMIC CHIP	0.033UF 10% 16V
C503	1-164-816-11	CERAMIC CHIP	220PF 2% 50V	C775	1-162-967-11	CERAMIC CHIP	0.0033UF 10% 16V
C504	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	C777	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C505	1-162-964-11	CERAMIC CHIP	0.001UF 10% 50V	C778	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C506	1-164-816-11	CERAMIC CHIP	220PF 2% 50V	C779	1-126-933-11	ELECT	100UF 20% 16V
C507	1-162-966-11	CERAMIC CHIP	0.0022UF 10% 50V	C780	1-104-665-11	ELECT	100UF 20% 25V
C701	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C781	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C702	1-126-964-11	ELECT	10UF 20% 50V	C782	1-130-489-00	MYLAR	0.033UF 5% 50V
C703	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C783	1-137-364-11	MYLAR	0.001UF 5% 50V
C704	1-126-947-11	ELECT	47UF 20% 25V	C784	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C705	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C785	1-126-963-11	ELECT	4.7UF 20% 50V
C706	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C786	1-126-963-11	ELECT	4.7UF 20% 50V
C707	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C787	1-126-960-11	ELECT	1UF 20% 50V
C708	1-104-665-11	ELECT	100UF 20% 10V	C788	1-165-176-11	CERAMIC CHIP	0.047UF 10% 16V
C709	1-162-920-11	CERAMIC CHIP	27PF 5% 50V	C789	1-126-964-11	ELECT	10UF 20% 50V
C710	1-162-919-11	CERAMIC CHIP	22PF 5% 50V	C790	1-164-677-11	CERAMIC CHIP	0.033UF 10% 16V
C713	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	C791	1-162-967-11	CERAMIC CHIP	0.0033UF 10% 16V
C714	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	C792	1-130-489-00	MYLAR	0.033UF 5% 50V
C719	1-162-964-11	CERAMIC CHIP	0.001UF 10% 50V	C793	1-130-471-00	MYLAR	0.001UF 5% 50V
C722	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C794	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C728	1-126-933-11	ELECT	100UF 20% 16V	C795	1-126-963-11	ELECT	4.7UF 20% 50V
C730	1-162-915-11	CERAMIC CHIP	10PF 0.50PF50V	C796	1-126-933-11	ELECT	100UF 20% 16V
C731	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	C797	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C732	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	C799	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C733	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	C800	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V
C735	1-126-933-11	ELECT	100UF 20% 16V	C801	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C736	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C802	1-126-935-11	ELECT	470UF 20% 16V
C737	1-164-156-11	CERAMIC CHIP	0.1UF 25V				
C738	1-126-933-11	ELECT	100UF 20% 16V				

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

KP-51HW40/57HW40
RM-Y909 RM-Y909

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REF. NO.	PART NO.	DESCRIPTION	REMARK
< CONNECTOR >			
CN1	* 1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN2	* 1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN3	* 1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN4	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN5	1-573-979-21	CONNECTOR, BOARD TO BOARD 11P	
CN6	* 1-793-922-11	CONNECTOR, DIN (RECEPTACLE)64P	
CN7	* 1-564-508-11	PLUG, CONNECTOR 5P	
CN8	1-695-915-11	TAB (CONTACT)	
CN9	* 1-564-509-11	PLUG, CONNECTOR 6P	
CN10	* 1-564-511-11	PLUG, CONNECTOR 8P	
CN11	1-573-298-21	CONNECTOR, BOARD TO BOARD 20P	
CN12	1-573-298-21	CONNECTOR, BOARD TO BOARD 20P	
CN13	* 1-793-922-11	CONNECTOR, DIN (RECEPTACLE)64P	
CN14	* 1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN15	1-695-915-11	TAB (CONTACT)	
CN16	* 1-564-506-11	PLUG, CONNECTOR 3P	
CN17	* 1-564-508-11	PLUG, CONNECTOR 3P	
CN18	* 1-564-508-11	PLUG, CONNECTOR 5P	
CN19	* 1-564-508-11	PLUG, CONNECTOR 5P	
CN701	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN702	* 1-564-509-11	PLUG, CONNECTOR 6P	
CN703	* 1-564-509-11	PLUG, CONNECTOR 6P	
CN704	* 1-564-509-11	PLUG, CONNECTOR 6P	
CN705	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN706	* 1-564-507-11	PLUG, CONNECTOR 4P	
< DIODE >			
D1	8-719-404-50	MA111-TX	
D5	8-719-083-87	UDZS-TE17-33B	
D7	8-719-069-55	UDZSTE-175.6B	
D307	8-719-069-33	DTZ-TT11-6.8B	
D312	8-719-069-55	UDZSTE-175.6B	
D317	8-719-404-50	MA111-TX	
D318	8-719-404-50	MA111-TX	
D319	8-719-404-50	MA111-TX	
D321	8-719-404-50	MA111-TX	
D701	8-719-941-86	DAN202U	
D702	8-719-404-50	MA111-TX	
D703	8-719-083-57	DIODE UDZSTE-173.6B	
D704	8-719-941-86	DAN202U	
D705	8-719-083-87	UDZS-TE17-33B	
D706	8-719-083-87	UDZS-TE17-33B	
D708	8-719-404-50	MA111-TX	
D709	8-719-404-50	MA111-TX	
D710	8-719-941-86	DAN202U	
D711	8-719-941-86	DAN202U	
D712	8-719-941-86	DAN202U	
D713	8-719-941-86	DAN202U	
D718	8-719-404-50	MA111-TX	
D719	8-719-404-50	MA111-TX	
D720	8-719-920-67	ERC91-02	
D721	8-719-920-67	ERC91-02	
D723	8-719-083-85	UDZS-TE17-22B	
D724	8-719-083-85	UDZS-TE17-22B	
D725	8-719-083-85	UDZS-TE17-22B	
D726	8-719-083-85	UDZS-TE17-22B	

REF. NO.	PART NO.	DESCRIPTION	REMARK
D729	8-719-404-50	MA111-TX	
D730	8-719-069-33	DTZ-TT11-6.8B	
< FERRITE BEAD >			
FB1	1-414-445-11	FERRITE	0UH
FB2	1-414-445-11	FERRITE	0UH
FB3	1-414-445-11	FERRITE	0UH
FB4	1-414-445-11	FERRITE	0UH
FB5	1-216-864-11	SHORT	0
FB6	1-414-445-11	FERRITE	0UH
FB301	1-414-760-21	FERRITE	0UH
< FILTER >			
FL3	1-233-512-21	FERRITE	37UH
FL4	1-239-848-11	FILTER, LOW PASS	
FL5	1-239-848-11	FILTER, LOW PASS	
FL6	1-239-848-11	FILTER, LOW PASS	
FL7	1-239-848-11	FILTER, LOW PASS	
< IC >			
IC1	8-759-445-59	BA033T	
IC2	8-759-198-03	PQ09RF21	
IC3	8-759-830-08	IC NJM2068V-TE2	
IC4	8-759-568-27	MSM514265C-60JS	
IC5	8-759-100-96	UPC4558G2	
IC6	8-759-594-44	UPD64082GF-3BA	
IC7	8-759-100-96	UPC4558G2	
IC8	8-759-445-59	BA033T	
IC9	8-759-701-79	NJM7812FA	
IC10	8-759-100-96	UPC4558G2	
IC11	8-759-100-96	UPC4558G2	
IC12	8-759-833-12	IC NJM2395AF05	
IC301	8-752-089-50	CXA2103Q	
IC302	8-752-916-40	CXP85840A-039Q	
IC303	8-752-089-50	CXA2103Q	
IC304	8-752-916-40	CXP85840A-039Q	
IC305	8-759-595-97	SN74LV4053ANSR	
IC306	8-752-093-84	CXA2151Q	
IC307	8-759-595-97	SN74LV4053ANSR	
IC308	8-752-395-13	CXD2085M-T4	
IC309	8-752-100-25	CXA2150AQ	
IC310	8-759-349-11	PST9145NL	
IC311	8-759-700-07	NJM2903M	
IC312	8-759-082-58	TC7W08FU	
IC701	8-759-349-11	PST9145NL	
IC702	6-700-149-01	M24C04-MN6T(A)	
IC703	8-759-575-72	M24C08-WMN6T	
IC704	6-800-449-01	M306V2ME-176FP	
IC705	8-752-068-37	CXA1726AM	
IC706	8-752-068-37	CXA1726AM	
IC707	8-759-100-96	UPC4558G2	
IC708	8-759-190-89	TDA7265	
IC709	8-759-830-08	IC NJM2068V-TE2	
IC710	8-759-830-08	IC NJM2068V-TE2	
IC711	8-759-690-57	BH3868BFS-E2	

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
< COIL >							
L1	1-414-181-11	INDUCTOR	4.7UH	Q6	8-729-422-27	2SD601A-Q	
L2	1-469-555-21	INDUCTOR	10UH	Q7	8-729-026-49	2SA1037AK-T146-R	
L3	1-469-555-21	INDUCTOR	10UH	Q8	8-729-026-49	2SA1037AK-T146-R	
L4	1-469-555-21	INDUCTOR	10UH	Q11	8-729-422-27	2SD601A-Q	
L5	1-414-193-41	INDUCTOR	220UH	Q12	8-729-026-49	2SA1037AK-T146-R	
L6	1-469-555-21	INDUCTOR	10UH	Q13	8-729-026-49	2SA1037AK-T146-R	
L7	1-414-856-11	INDUCTOR	10UH	Q14	8-729-422-27	2SD601A-Q	
L8	1-414-856-11	INDUCTOR	10UH	Q15	8-729-026-49	2SA1037AK-T146-R	
L9	1-414-856-11	INDUCTOR	10UH	Q16	8-729-026-49	2SA1037AK-T146-R	
L10	1-412-537-31	INDUCTOR	100UH	Q17	8-729-422-27	2SD601A-Q	
L11	1-414-856-11	INDUCTOR	10UH	Q18	8-729-422-27	2SD601A-Q	
L12	1-414-856-11	INDUCTOR	10UH	Q19	8-729-422-27	2SD601A-Q	
L13	1-414-856-11	INDUCTOR	10UH	Q20	8-729-422-27	2SD601A-Q	
L301	1-469-555-21	INDUCTOR	10UH	Q21	8-729-026-49	2SA1037AK-T146-R	
L302	1-469-555-21	INDUCTOR	10UH	Q22	8-729-422-27	2SD601A-Q	
L303	1-469-555-21	INDUCTOR	10UH	Q23	8-729-422-27	2SD601A-Q	
L304	1-469-555-21	INDUCTOR	10UH	Q24	8-729-422-27	2SD601A-Q	
L305	1-469-555-21	INDUCTOR	10UH	Q25	8-729-422-27	2SD601A-Q	
L306	1-414-193-41	INDUCTOR	220UH	Q26	8-729-422-27	2SD601A-Q	
L307	1-469-555-21	INDUCTOR	10UH	Q27	8-729-422-27	2SD601A-Q	
L308	1-414-856-11	INDUCTOR	10UH	Q28	8-729-026-49	2SA1037AK-T146-R	
L309	1-469-555-21	INDUCTOR	10UH	Q301	8-729-422-27	2SD601A-Q	
L310	1-469-555-21	INDUCTOR	10UH	Q302	8-729-422-27	2SD601A-Q	
L311	1-469-555-21	INDUCTOR	10UH	Q303	8-729-026-49	2SA1037AK-T146-R	
L312	1-469-555-21	INDUCTOR	10UH	Q304	8-729-422-27	2SD601A-Q	
L313	1-414-856-11	INDUCTOR	10UH	Q305	8-729-422-27	2SD601A-Q	
L314	1-469-555-21	INDUCTOR	10UH	Q306	8-729-422-27	2SD601A-Q	
L315	1-469-555-21	INDUCTOR	10UH	Q307	8-729-422-27	2SD601A-Q	
L316	1-414-856-11	INDUCTOR	10UH	Q308	8-729-026-49	2SA1037AK-T146-R	
L317	1-414-856-11	INDUCTOR	10UH	Q309	8-729-422-27	2SD601A-Q	
L318	1-469-555-21	INDUCTOR	10UH	Q310	8-729-422-27	2SD601A-Q	
L321	1-414-856-11	INDUCTOR	10UH	Q311	8-729-422-27	2SD601A-Q	
L701	1-414-179-21	INDUCTOR	2.2UH	Q312	8-729-026-49	2SA1037AK-T146-R	
L702	1-412-911-11	FERRITE	0UH	Q313	8-729-422-27	2SD601A-Q	
L704	1-469-555-21	INDUCTOR	10UH	Q314	8-729-422-27	2SD601A-Q	
L705	1-469-555-21	INDUCTOR	10UH	Q315	8-729-422-27	2SD601A-Q	
< NEON LAMP >				Q316	8-729-422-27	2SD601A-Q	
NL701	1-517-778-21	LAMP, NEON		Q317	8-729-422-27	2SD601A-Q	
NL702	1-517-778-21	LAMP, NEON		Q318	8-729-422-27	2SD601A-Q	
NL703	1-517-778-21	LAMP, NEON		Q319	8-729-422-27	2SD601A-Q	
< IC LINK >				Q320	8-729-422-27	2SD601A-Q	
PS1	0 1-532-679-00	LINK, IC		Q321	8-729-422-27	2SD601A-Q	
PS2	0 1-532-685-00	LINK, IC		Q322	8-729-422-27	2SD601A-Q	
PS3	0 1-532-679-00	LINK, IC		Q323	8-729-422-27	2SD601A-Q	
PS701	0 1-576-336-21	LINK, IC		Q324	8-729-422-27	2SD601A-Q	
PS702	0 1-576-336-21	LINK, IC		Q325	8-729-026-49	2SA1037AK-T146-R	
< TRANSISTOR >				Q326	8-729-026-49	2SA1037AK-T146-R	
Q1	8-729-026-49	2SA1037AK-T146-R		Q327	8-729-026-49	2SA1037AK-T146-R	
Q2	8-729-026-49	2SA1037AK-T146-R		Q328	8-729-026-49	2SA1037AK-T146-R	
Q3	8-729-422-27	2SD601A-Q		Q329	8-729-026-49	2SA1037AK-T146-R	
Q4	8-729-026-49	2SA1037AK-T146-R		Q330	8-729-026-49	2SA1037AK-T146-R	
Q5	8-729-422-27	2SD601A-Q		Q331	8-729-026-49	2SA1037AK-T146-R	
				Q332	8-729-026-49	2SA1037AK-T146-R	
				Q333	8-729-026-49	2SA1037AK-T146-R	
				Q334	8-729-026-49	2SA1037AK-T146-R	
				Q335	8-729-422-27	2SD601A-Q	
				Q336	8-729-422-27	2SD601A-Q	

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q337	8-729-422-27	2SD601A-Q				< RESISTOR >	
Q338	8-729-422-27	2SD601A-Q		R1	1-216-464-11	METAL OXIDE	18K 5% 2W
Q339	8-729-422-27	2SD601A-Q		R2	1-216-813-11	RES-CHIP	220 5% 1/16W
Q340	8-729-422-27	2SD601A-Q		R3	1-216-813-11	RES-CHIP	220 5% 1/16W
Q341	8-729-422-27	2SD601A-Q		R4	1-216-813-11	RES-CHIP	220 5% 1/16W
Q342	8-729-422-27	2SD601A-Q		R5	1-216-813-11	RES-CHIP	220 5% 1/16W
Q343	8-729-122-63	2SA1226		R6	1-216-813-11	RES-CHIP	220 5% 1/16W
Q344	8-729-026-49	2SA1037AK-T146-R		R7	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q345	8-729-026-49	2SA1037AK-T146-R		R8	1-216-813-11	RES-CHIP	220 5% 1/16W
Q346	8-729-422-27	2SD601A-Q		R9	1-216-813-11	RES-CHIP	220 5% 1/16W
Q347	8-729-122-63	2SA1226		R10	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q348	8-729-026-49	2SA1037AK-T146-R		R11	1-218-720-11	METAL CHIP	15K 0.5% 1/16W
Q349	8-729-422-27	2SD601A-Q		R12	1-218-722-11	METAL CHIP	18K 0.5% 1/16W
Q351	8-729-122-63	2SA1226		R13	1-218-740-11	METAL CHIP	100K 0.5% 1/16W
Q352	8-729-422-27	2SD601A-Q		R14	1-218-295-11	RES-CHIP	43K 5% 1/16W
Q353	8-729-026-49	2SA1037AK-T146-R		R15	1-216-821-11	RES-CHIP	1K 5% 1/16W
Q354	8-729-026-49	2SA1037AK-T146-R		R16	1-218-702-11	METAL CHIP	2.7K 0.5% 1/16W
Q355	8-729-422-27	2SD601A-Q		R17	1-218-706-11	METAL CHIP	3.9K 0.5% 1/16W
Q356	8-729-026-49	2SA1037AK-T146-R		R18	1-218-714-11	METAL CHIP	8.2K 0.5% 1/16W
Q357	8-729-026-49	2SA1037AK-T146-R		R19	1-216-817-11	RES-CHIP	470 5% 1/16W
Q358	8-729-026-49	2SA1037AK-T146-R		R20	1-216-827-11	RES-CHIP	3.3K 5% 1/16W
Q361	8-729-422-27	2SD601A-Q		R21	1-216-839-11	RES-CHIP	33K 5% 1/16W
Q363	8-729-422-27	2SD601A-Q		R22	1-216-817-11	RES-CHIP	470 5% 1/16W
Q367	8-729-122-63	2SA1226		R23	1-216-809-11	RES-CHIP	100 5% 1/16W
Q368	8-729-422-27	2SD601A-Q		R24	1-216-809-11	RES-CHIP	100 5% 1/16W
Q369	1-801-806-11	TR DTC144EKA		R25	1-216-809-11	RES-CHIP	100 5% 1/16W
Q373	8-729-422-27	2SD601A-Q		R26	1-216-809-11	RES-CHIP	100 5% 1/16W
Q374	8-729-422-27	2SD601A-Q		R27	1-218-707-11	METAL CHIP	4.3K 0.5% 1/16W
Q378	8-729-422-27	2SD601A-Q		R29	1-216-864-11	SHORT	0
Q379	8-729-026-49	2SA1037AK-T146-R		R30	1-216-809-11	RES-CHIP	100 5% 1/16W
Q380	8-729-422-27	2SD601A-Q		R31	1-216-809-11	RES-CHIP	100 5% 1/16W
Q381	8-729-422-27	2SD601A-Q		R32	1-216-864-11	SHORT	0
Q501	8-729-026-49	2SA1037AK-T146-R		R33	1-216-809-11	RES-CHIP	100 5% 1/16W
Q502	8-729-422-27	2SD601A-Q		R37	1-216-853-11	RES-CHIP	470K 5% 1/16W
Q701	8-729-422-27	2SD601A-Q		R39	1-216-855-11	RES-CHIP	680K 5% 1/16W
Q702	8-729-026-49	2SA1037AK-T146-R		R40	1-216-809-11	RES-CHIP	100 5% 1/16W
Q703	8-729-422-27	2SD601A-Q		R42	1-216-855-11	RES-CHIP	680K 5% 1/16W
Q704	8-729-026-49	2SA1037AK-T146-R		R43	1-216-853-11	RES-CHIP	470K 5% 1/16W
Q705	8-729-422-27	2SD601A-Q		R44	1-249-377-11	CARBON	0.47 5% 1/4W
Q706	8-729-026-49	2SA1037AK-T146-R		R46	1-216-822-11	RES-CHIP	1.2K 5% 1/16W
Q707	1-801-806-11	TR DTC144EKA		R48	1-216-809-11	RES-CHIP	100 5% 1/16W
Q708	8-729-422-27	2SD601A-Q		R49	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q709	8-729-422-27	2SD601A-Q		R50	1-216-809-11	RES-CHIP	100 5% 1/16W
Q710	8-729-422-27	2SD601A-Q		R51	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q712	8-729-026-49	2SA1037AK-T146-R		R52	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q713	8-729-026-49	2SA1037AK-T146-R		R53	1-216-817-11	RES-CHIP	470 5% 1/16W
Q714	8-729-027-38	DTA144EKA-T146		R54	1-216-817-11	RES-CHIP	470 5% 1/16W
Q715	8-729-422-27	2SD601A-Q		R55	1-216-822-11	RES-CHIP	1.2K 5% 1/16W
Q716	8-729-422-27	2SD601A-Q		R56	1-216-805-11	RES-CHIP	47 5% 1/16W
Q717	8-729-422-27	2SD601A-Q		R57	1-216-805-11	RES-CHIP	47 5% 1/16W
Q718	8-729-422-27	2SD601A-Q		R59	1-216-821-11	RES-CHIP	1K 5% 1/16W
Q721	8-729-026-49	2SA1037AK-T146-R		R60	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q722	8-729-422-27	2SD601A-Q		R61	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
Q723	8-729-422-27	2SD601A-Q		R62	1-216-821-11	RES-CHIP	1K 5% 1/16W
Q724	8-729-422-27	2SD601A-Q		R63	1-216-809-11	RES-CHIP	100 5% 1/16W
Q725	8-729-026-49	2SA1037AK-T146-R		R64	1-216-837-11	RES-CHIP	22K 5% 1/16W
Q726	8-729-026-49	2SA1037AK-T146-R					

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R65	1-216-833-11	RES-CHIP	10K 5% 1/16W	R130	1-216-821-11	RES-CHIP	1K 5% 1/16W
R66	1-216-849-11	RES-CHIP	220K 5% 1/16W	R131	1-216-837-11	RES-CHIP	22K 5% 1/16W
R67	1-216-841-11	RES-CHIP	47K 5% 1/16W	R133	1-218-686-11	METAL CHIP	560 0.5% 1/16W
R68	1-216-839-11	RES-CHIP	33K 5% 1/16W				
R69	1-216-857-11	RES-CHIP	1M 5% 1/16W	R134	1-218-683-11	METAL CHIP	430 0.5% 1/16W
				R135	1-216-809-11	RES-CHIP	100 5% 1/16W
R70	1-216-845-11	RES-CHIP	100K 5% 1/16W	R136	1-216-821-11	RES-CHIP	1K 5% 1/16W
R71	1-216-813-11	RES-CHIP	220 5% 1/16W	R137	1-216-833-11	RES-CHIP	10K 5% 1/16W
R72	1-216-821-11	RES-CHIP	1K 5% 1/16W	R138	1-216-833-11	RES-CHIP	10K 5% 1/16W
R73	1-218-686-11	METAL CHIP	560 0.5% 1/16W				
R74	1-218-684-11	METAL CHIP	470 0.5% 1/16W	R139	1-216-841-11	RES-CHIP	47K 5% 1/16W
				R140	1-216-833-11	RES-CHIP	10K 5% 1/16W
R75	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R141	1-216-809-11	RES-CHIP	100 5% 1/16W
R76	1-216-818-11	RES-CHIP	560 5% 1/16W	R142	1-216-843-11	RES-CHIP	68K 5% 1/16W
R77	1-216-821-11	RES-CHIP	1K 5% 1/16W	R143	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R78	1-218-686-11	METAL CHIP	560 0.5% 1/16W				
R79	1-216-818-11	RES-CHIP	560 5% 1/16W	R144	1-216-843-11	RES-CHIP	68K 5% 1/16W
				R145	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R80	1-218-686-11	METAL CHIP	560 0.5% 1/16W	R146	1-218-295-11	RES-CHIP	43K 5% 1/16W
R81	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R151	1-216-833-11	RES-CHIP	10K 5% 1/16W
R82	1-216-821-11	RES-CHIP	1K 5% 1/16W	R152	1-216-833-11	RES-CHIP	10K 5% 1/16W
R85	1-216-830-11	RES-CHIP	5.6K 5% 1/16W				
R87	1-216-833-11	RES-CHIP	10K 5% 1/16W	R153	1-216-833-11	RES-CHIP	10K 5% 1/16W
				R154	1-216-830-11	RES-CHIP	5.6K 5% 1/16W
R88	1-216-830-11	RES-CHIP	5.6K 5% 1/16W	R155	1-216-864-11	SHORT	0
R89	1-216-813-11	RES-CHIP	220 5% 1/16W	R301	1-216-809-11	RES-CHIP	100 5% 1/16W
R90	1-216-864-11	SHORT	0	R302	1-216-809-11	RES-CHIP	100 5% 1/16W
R91	1-216-864-11	SHORT	0				
R92	1-216-830-11	RES-CHIP	5.6K 5% 1/16W	R303	1-216-833-11	RES-CHIP	10K 5% 1/16W
				R304	1-216-833-11	RES-CHIP	10K 5% 1/16W
R93	1-216-830-11	RES-CHIP	5.6K 5% 1/16W	R305	1-216-835-11	RES-CHIP	15K 5% 1/16W
R95	1-216-818-11	RES-CHIP	560 5% 1/16W	R306	1-218-696-11	METAL CHIP	1.5K 0.5% 1/16W
R96	1-216-818-11	RES-CHIP	560 5% 1/16W	R307	1-218-696-11	METAL CHIP	1.5K 0.5% 1/16W
R99	1-216-825-11	RES-CHIP	2.2K 5% 1/16W				
R100	1-216-833-11	RES-CHIP	10K 5% 1/16W	R308	1-216-821-11	RES-CHIP	1K 5% 1/16W
				R309	1-216-813-11	RES-CHIP	220 5% 1/16W
R102	1-216-818-11	RES-CHIP	560 5% 1/16W	R310	1-216-857-11	RES-CHIP	1M 5% 1/16W
R103	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R311	1-216-840-11	RES-CHIP	39K 5% 1/16W
R104	1-216-821-11	RES-CHIP	1K 5% 1/16W	R312	1-216-809-11	RES-CHIP	100 5% 1/16W
R105	1-216-821-11	RES-CHIP	1K 5% 1/16W				
R107	1-216-833-11	RES-CHIP	10K 5% 1/16W	R313	1-216-833-11	RES-CHIP	10K 5% 1/16W
				R314	1-216-833-11	RES-CHIP	10K 5% 1/16W
R108	1-216-818-11	RES-CHIP	560 5% 1/16W	R315	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R109	1-216-807-11	RES-CHIP	68 5% 1/16W	R316	1-216-821-11	RES-CHIP	1K 5% 1/16W
R110	1-216-809-11	RES-CHIP	100 5% 1/16W	R317	1-216-821-11	RES-CHIP	1K 5% 1/16W
R111	1-216-809-11	RES-CHIP	100 5% 1/16W				
R112	1-216-857-11	RES-CHIP	1M 5% 1/16W	R318	1-216-833-11	RES-CHIP	10K 5% 1/16W
				R319	1-216-864-11	SHORT	0
R113	1-216-845-11	RES-CHIP	100K 5% 1/16W	R320	1-216-833-11	RES-CHIP	10K 5% 1/16W
R114	1-216-809-11	RES-CHIP	100 5% 1/16W	R321	1-216-821-11	RES-CHIP	1K 5% 1/16W
R115	1-216-820-11	RES-CHIP	820 5% 1/16W	R322	1-216-809-11	RES-CHIP	100 5% 1/16W
R116	1-216-825-11	RES-CHIP	2.2K 5% 1/16W				
R117	1-216-821-11	RES-CHIP	1K 5% 1/16W	R323	1-216-809-11	RES-CHIP	100 5% 1/16W
				R324	1-216-809-11	RES-CHIP	100 5% 1/16W
R118	1-216-820-11	RES-CHIP	820 5% 1/16W	R325	1-216-835-11	RES-CHIP	15K 5% 1/16W
R119	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R326	1-216-864-11	SHORT	0
R120	1-216-834-11	RES-CHIP	12K 5% 1/16W	R327	1-216-817-11	RES-CHIP	470 5% 1/16W
R121	1-216-839-11	RES-CHIP	33K 5% 1/16W				
R122	1-216-820-11	RES-CHIP	820 5% 1/16W	R329	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
				R330	1-216-828-11	RES-CHIP	3.9K 5% 1/16W
R123	1-216-833-11	RES-CHIP	10K 5% 1/16W	R331	1-216-833-11	RES-CHIP	10K 5% 1/16W
R124	1-216-834-11	RES-CHIP	12K 5% 1/16W	R332	1-218-700-11	METAL CHIP	2.2K 0.5% 1/16W
R125	1-216-839-11	RES-CHIP	33K 5% 1/16W	R333	1-216-809-11	RES-CHIP	100 5% 1/16W
R126	1-216-825-11	RES-CHIP	2.2K 5% 1/16W				
R127	1-216-839-11	RES-CHIP	33K 5% 1/16W	R334	1-216-809-11	RES-CHIP	100 5% 1/16W
				R335	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R128	1-216-821-11	RES-CHIP	1K 5% 1/16W	R336	1-216-809-11	RES-CHIP	100 5% 1/16W
R129	1-216-805-11	RES-CHIP	47 5% 1/16W	R337	1-216-823-11	RES-CHIP	1.5K 5% 1/16W

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R338	1-216-823-11	RES-CHIP	1.5K 5% 1/16W	R394	1-216-809-11	RES-CHIP	100 5% 1/16W
R339	1-216-809-11	RES-CHIP	100 5% 1/16W	R395	1-216-821-11	RES-CHIP	1K 5% 1/16W
R340	1-216-828-11	RES-CHIP	3.9K 5% 1/16W	R396	1-216-821-11	RES-CHIP	1K 5% 1/16W
R341	1-218-706-11	METAL CHIP	3.9K 0.5% 1/16W	R397	1-216-821-11	RES-CHIP	1K 5% 1/16W
R342	1-216-841-11	RES-CHIP	47K 5% 1/16W	R398	1-216-845-11	RES-CHIP	100K 5% 1/16W
R343	1-216-809-11	RES-CHIP	100 5% 1/16W	R399	1-216-833-11	RES-CHIP	10K 5% 1/16W
R344	1-216-809-11	RES-CHIP	100 5% 1/16W	R400	1-216-845-11	RES-CHIP	100K 5% 1/16W
R345	1-218-696-11	METAL CHIP	1.5K 0.5% 1/16W	R401	1-216-845-11	RES-CHIP	100K 5% 1/16W
R346	1-218-696-11	METAL CHIP	1.5K 0.5% 1/16W	R402	1-216-845-11	RES-CHIP	100K 5% 1/16W
R347	1-216-817-11	RES-CHIP	470 5% 1/16W	R403	1-216-845-11	RES-CHIP	100K 5% 1/16W
R348	1-216-841-11	RES-CHIP	47K 5% 1/16W	R404	1-216-845-11	RES-CHIP	100K 5% 1/16W
R349	1-216-813-11	RES-CHIP	220 5% 1/16W	R405	1-216-845-11	RES-CHIP	100K 5% 1/16W
R350	1-216-809-11	RES-CHIP	100 5% 1/16W	R406	1-216-864-11	SHORT	0
R351	1-216-813-11	RES-CHIP	220 5% 1/16W	R407	1-216-833-11	RES-CHIP	10K 5% 1/16W
R352	1-216-813-11	RES-CHIP	220 5% 1/16W	R408	1-216-821-11	RES-CHIP	1K 5% 1/16W
R353	1-216-809-11	RES-CHIP	100 5% 1/16W	R409	1-216-821-11	RES-CHIP	1K 5% 1/16W
R354	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R410	1-218-673-11	METAL CHIP	160 0.5% 1/16W
R355	1-216-809-11	RES-CHIP	100 5% 1/16W	R411	1-218-673-11	METAL CHIP	160 0.5% 1/16W
R356	1-216-841-11	RES-CHIP	47K 5% 1/16W	R412	1-216-813-11	RES-CHIP	220 5% 1/16W
R357	1-216-837-11	RES-CHIP	22K 5% 1/16W	R413	1-218-668-11	METAL CHIP	100 0.5% 1/16W
R358	1-216-837-11	RES-CHIP	22K 5% 1/16W	R414	1-218-668-11	METAL CHIP	100 0.5% 1/16W
R359	1-216-837-11	RES-CHIP	22K 5% 1/16W	R415	1-218-668-11	METAL CHIP	100 0.5% 1/16W
R360	1-216-837-11	RES-CHIP	22K 5% 1/16W	R416	1-216-857-11	RES-CHIP	1M 5% 1/16W
R361	1-216-837-11	RES-CHIP	22K 5% 1/16W	R417	1-216-809-11	RES-CHIP	100 5% 1/16W
R362	1-216-837-11	RES-CHIP	22K 5% 1/16W	R418	1-216-809-11	RES-CHIP	100 5% 1/16W
R363	1-216-809-11	RES-CHIP	100 5% 1/16W	R419	1-218-702-11	METAL CHIP	2.7K 0.5% 1/16W
R364	1-216-809-11	RES-CHIP	100 5% 1/16W	R420	1-218-698-11	METAL CHIP	1.8K 0.5% 1/16W
R365	1-216-809-11	RES-CHIP	100 5% 1/16W	R421	1-216-809-11	RES-CHIP	100 5% 1/16W
R366	1-216-841-11	RES-CHIP	47K 5% 1/16W	R422	1-216-809-11	RES-CHIP	100 5% 1/16W
R367	1-216-821-11	RES-CHIP	1K 5% 1/16W	R423	1-216-809-11	RES-CHIP	100 5% 1/16W
R368	1-216-821-11	RES-CHIP	1K 5% 1/16W	R424	1-218-674-11	METAL CHIP	180 0.5% 1/16W
R369	1-216-821-11	RES-CHIP	1K 5% 1/16W	R425	1-218-674-11	METAL CHIP	180 0.5% 1/16W
R370	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R426	1-218-674-11	METAL CHIP	180 0.5% 1/16W
R371	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R427	1-218-673-11	METAL CHIP	160 0.5% 1/16W
R372	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R428	1-216-864-11	SHORT	0
R373	1-216-809-11	RES-CHIP	100 5% 1/16W	R431	1-216-809-11	RES-CHIP	100 5% 1/16W
R374	1-216-815-11	RES-CHIP	330 5% 1/16W	R432	1-216-817-11	RES-CHIP	470 5% 1/16W
R375	1-216-815-11	RES-CHIP	330 5% 1/16W	R433	1-216-817-11	RES-CHIP	470 5% 1/16W
R376	1-216-815-11	RES-CHIP	330 5% 1/16W	R434	1-216-809-11	RES-CHIP	100 5% 1/16W
R377	1-216-837-11	RES-CHIP	22K 5% 1/16W	R435	1-216-817-11	RES-CHIP	470 5% 1/16W
R378	1-216-837-11	RES-CHIP	22K 5% 1/16W	R436	1-216-809-11	RES-CHIP	100 5% 1/16W
R379	1-216-837-11	RES-CHIP	22K 5% 1/16W	R437	1-216-809-11	RES-CHIP	100 5% 1/16W
R380	1-216-837-11	RES-CHIP	22K 5% 1/16W	R438	1-216-809-11	RES-CHIP	100 5% 1/16W
R381	1-216-837-11	RES-CHIP	22K 5% 1/16W	R439	1-216-817-11	RES-CHIP	470 5% 1/16W
R382	1-216-837-11	RES-CHIP	22K 5% 1/16W	R440	1-216-813-11	RES-CHIP	220 5% 1/16W
R383	1-216-809-11	RES-CHIP	100 5% 1/16W	R441	1-216-813-11	RES-CHIP	220 5% 1/16W
R384	1-216-809-11	RES-CHIP	100 5% 1/16W	R442	1-216-813-11	RES-CHIP	220 5% 1/16W
R385	1-216-821-11	RES-CHIP	1K 5% 1/16W	R443	1-216-809-11	RES-CHIP	100 5% 1/16W
R386	1-216-809-11	RES-CHIP	100 5% 1/16W	R444	1-216-809-11	RES-CHIP	100 5% 1/16W
R387	1-216-845-11	RES-CHIP	100K 5% 1/16W	R445	1-216-809-11	RES-CHIP	100 5% 1/16W
R388	1-216-837-11	RES-CHIP	22K 5% 1/16W	R446	1-216-809-11	RES-CHIP	100 5% 1/16W
R389	1-216-809-11	RES-CHIP	100 5% 1/16W	R447	1-216-809-11	RES-CHIP	100 5% 1/16W
R390	1-216-809-11	RES-CHIP	100 5% 1/16W	R448	1-216-809-11	RES-CHIP	100 5% 1/16W
R391	1-216-809-11	RES-CHIP	100 5% 1/16W	R449	1-216-809-11	RES-CHIP	100 5% 1/16W
R392	1-216-809-11	RES-CHIP	100 5% 1/16W	R450	1-216-814-11	RES-CHIP	270 5% 1/16W
R393	1-216-809-11	RES-CHIP	100 5% 1/16W	R451	1-216-814-11	RES-CHIP	270 5% 1/16W
				R452	1-216-814-11	RES-CHIP	270 5% 1/16W

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R453	1-216-841-11	RES-CHIP	47K 5% 1/16W	R550	1-216-863-11	RES-CHIP	3.3M 5% 1/16W
R454	1-216-837-11	RES-CHIP	22K 5% 1/16W	R551	1-216-833-11	RES-CHIP	10K 5% 1/16W
R455	1-216-837-11	RES-CHIP	22K 5% 1/16W	R552	1-216-809-11	RES-CHIP	100 5% 1/16W
R456	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R553	1-216-834-11	RES-CHIP	12K 5% 1/16W
R457	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R554	1-216-809-11	RES-CHIP	100 5% 1/16W
R458	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R556	1-216-808-11	RES-CHIP	82 5% 1/16W
R459	1-216-815-11	RES-CHIP	330 5% 1/16W	R557	1-216-808-11	RES-CHIP	82 5% 1/16W
R460	1-216-815-11	RES-CHIP	330 5% 1/16W	R558	1-216-808-11	RES-CHIP	82 5% 1/16W
R461	1-216-815-11	RES-CHIP	330 5% 1/16W	R559	1-216-817-11	RES-CHIP	470 5% 1/16W
R462	1-216-817-11	RES-CHIP	470 5% 1/16W	R561	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R463	1-218-716-11	METAL CHIP	10K 0.5% 1/16W	R562	1-216-817-11	RES-CHIP	470 5% 1/16W
R464	1-216-809-11	RES-CHIP	100 5% 1/16W	R566	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R468	1-216-809-11	RES-CHIP	100 5% 1/16W	R567	1-218-708-11	METAL CHIP	4.7K 0.5% 1/16W
R469	1-216-797-11	RES-CHIP	10 5% 1/16W	R568	1-216-809-11	RES-CHIP	100 5% 1/16W
R470	1-216-839-11	RES-CHIP	33K 5% 1/16W	R569	1-216-809-11	RES-CHIP	100 5% 1/16W
R473	1-216-809-11	RES-CHIP	100 5% 1/16W	R570	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R476	1-216-808-11	RES-CHIP	82 5% 1/16W	R571	1-216-864-11	SHORT	0
R477	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R572	1-216-835-11	RES-CHIP	15K 5% 1/16W
R480	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R574	1-216-833-11	RES-CHIP	10K 5% 1/16W
R481	1-216-821-11	RES-CHIP	1K 5% 1/16W	R575	1-216-833-11	RES-CHIP	10K 5% 1/16W
R482	1-216-839-11	RES-CHIP	33K 5% 1/16W	R576	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R484	1-216-809-11	RES-CHIP	100 5% 1/16W	R577	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R486	1-216-809-11	RES-CHIP	100 5% 1/16W	R593	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R487	1-216-809-11	RES-CHIP	100 5% 1/16W	R594	1-216-833-11	RES-CHIP	10K 5% 1/16W
R489	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R596	1-216-841-11	RES-CHIP	47K 5% 1/16W
R490	1-216-808-11	RES-CHIP	82 5% 1/16W	R597	1-216-821-11	RES-CHIP	1K 5% 1/16W
R491	1-216-833-11	RES-CHIP	10K 5% 1/16W	R598	1-216-833-11	RES-CHIP	10K 5% 1/16W
R492	1-216-864-11	SHORT	0	R599	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R493	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R602	1-216-837-11	RES-CHIP	22K 5% 1/16W
R494	1-216-833-11	RES-CHIP	10K 5% 1/16W	R603	1-216-833-11	RES-CHIP	10K 5% 1/16W
R496	1-216-809-11	RES-CHIP	100 5% 1/16W	R604	1-216-833-11	RES-CHIP	10K 5% 1/16W
R501	1-216-808-11	RES-CHIP	82 5% 1/16W	R605	1-216-833-11	RES-CHIP	10K 5% 1/16W
R502	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R606	1-216-833-11	RES-CHIP	10K 5% 1/16W
R503	1-216-833-11	RES-CHIP	10K 5% 1/16W	R607	1-216-833-11	RES-CHIP	10K 5% 1/16W
R504	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R608	1-216-833-11	RES-CHIP	10K 5% 1/16W
R505	1-216-821-11	RES-CHIP	1K 5% 1/16W	R609	1-216-809-11	RES-CHIP	100 5% 1/16W
R506	1-216-837-11	RES-CHIP	22K 5% 1/16W	R613	1-216-833-11	RES-CHIP	10K 5% 1/16W
R507	1-216-827-11	RES-CHIP	3.3K 5% 1/16W	R614	1-216-836-11	RES-CHIP	18K 5% 1/16W
R508	1-216-821-11	RES-CHIP	1K 5% 1/16W	R615	1-216-832-11	RES-CHIP	8.2K 5% 1/16W
R509	1-216-837-11	RES-CHIP	22K 5% 1/16W	R616	1-216-833-11	RES-CHIP	10K 5% 1/16W
R510	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R617	1-216-809-11	RES-CHIP	100 5% 1/16W
R512	1-216-864-11	SHORT	0	R618	1-216-809-11	RES-CHIP	100 5% 1/16W
R513	1-216-826-11	RES-CHIP	2.7K 5% 1/16W	R619	1-216-821-11	RES-CHIP	1K 5% 1/16W
R515	1-216-809-11	RES-CHIP	100 5% 1/16W	R620	1-216-807-11	RES-CHIP	68 5% 1/16W
R516	1-216-809-11	RES-CHIP	100 5% 1/16W	R621	1-216-807-11	RES-CHIP	68 5% 1/16W
R517	1-216-809-11	RES-CHIP	100 5% 1/16W	R622	1-216-807-11	RES-CHIP	68 5% 1/16W
R518	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R624	1-216-809-11	RES-CHIP	100 5% 1/16W
R519	1-216-821-11	RES-CHIP	1K 5% 1/16W	R628	1-249-377-11	CARBON	0.47 5% 1/4W
R521	1-216-833-11	RES-CHIP	10K 5% 1/16W	R701	1-216-817-11	RES-CHIP	470 5% 1/16W
R527	1-216-864-11	SHORT	0	R702	1-216-841-11	RES-CHIP	47K 5% 1/16W
R538	1-216-809-11	RES-CHIP	100 5% 1/16W	R703	1-216-821-11	RES-CHIP	1K 5% 1/16W
R540	1-216-809-11	RES-CHIP	100 5% 1/16W	R705	1-216-809-11	RES-CHIP	100 5% 1/16W
R541	1-216-831-11	RES-CHIP	6.8K 5% 1/16W	R706	1-216-809-11	RES-CHIP	100 5% 1/16W
R542	1-216-809-11	RES-CHIP	100 5% 1/16W	R707	1-216-809-11	RES-CHIP	100 5% 1/16W
R543	1-216-826-11	RES-CHIP	2.7K 5% 1/16W	R708	1-216-809-11	RES-CHIP	100 5% 1/16W
R544	1-216-827-11	RES-CHIP	3.3K 5% 1/16W	R709	1-216-817-11	RES-CHIP	470 5% 1/16W
R547	1-216-809-11	RES-CHIP	100 5% 1/16W				

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R710	1-216-813-11	RES-CHIP	220 5% 1/16W	R778	1-216-809-11	RES-CHIP	100 5% 1/16W
R711	1-216-833-11	RES-CHIP	10K 5% 1/16W	R779	1-216-809-11	RES-CHIP	100 5% 1/16W
R712	1-216-813-11	RES-CHIP	220 5% 1/16W	R781	1-216-823-11	RES-CHIP	1.5K 5% 1/16W
R714	1-216-809-11	RES-CHIP	100 5% 1/16W	R782	1-216-809-11	RES-CHIP	100 5% 1/16W
R715	1-216-809-11	RES-CHIP	100 5% 1/16W	R783	1-216-809-11	RES-CHIP	100 5% 1/16W
R716	1-216-821-11	RES-CHIP	1K 5% 1/16W	R784	1-216-809-11	RES-CHIP	100 5% 1/16W
R717	1-216-827-11	RES-CHIP	3.3K 5% 1/16W	R785	1-216-821-11	RES-CHIP	1K 5% 1/16W
R718	1-216-827-11	RES-CHIP	3.3K 5% 1/16W	R786	1-216-821-11	RES-CHIP	1K 5% 1/16W
R719	1-216-813-11	RES-CHIP	220 5% 1/16W	R787	1-216-833-11	RES-CHIP	10K 5% 1/16W
R720	1-216-809-11	RES-CHIP	100 5% 1/16W	R788	1-216-845-11	RES-CHIP	100K 5% 1/16W
R721	1-216-823-11	RES-CHIP	1.5K 5% 1/16W	R790	1-216-837-11	RES-CHIP	22K 5% 1/16W
R722	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R796	1-216-821-11	RES-CHIP	1K 5% 1/16W
R723	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R797	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R724	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R803	1-216-833-11	RES-CHIP	10K 5% 1/16W
R725	1-216-809-11	RES-CHIP	100 5% 1/16W	R804	1-216-837-11	RES-CHIP	22K 5% 1/16W
R728	1-216-864-11	SHORT	0	R806	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R732	1-216-809-11	RES-CHIP	100 5% 1/16W	R807	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R733	1-216-821-11	RES-CHIP	1K 5% 1/16W	R808	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R735	1-216-833-11	RES-CHIP	10K 5% 1/16W	R809	1-216-835-11	RES-CHIP	15K 5% 1/16W
R736	1-216-813-11	RES-CHIP	220 5% 1/16W	R810	1-216-833-11	RES-CHIP	10K 5% 1/16W
R737	1-216-833-11	RES-CHIP	10K 5% 1/16W	R811	1-218-708-11	METAL CHIP	4.7K 0.5% 1/16W
R738	1-218-708-11	METAL CHIP	4.7K 0.5% 1/16W	R813	1-216-857-11	RES-CHIP	1M 5% 1/16W
R740	1-216-809-11	RES-CHIP	100 5% 1/16W	R814	1-218-701-11	METAL CHIP	2.4K 0.5% 1/16W
R742	1-216-821-11	RES-CHIP	1K 5% 1/16W	R815	1-216-830-11	RES-CHIP	5.6K 5% 1/16W
R743	1-216-809-11	RES-CHIP	100 5% 1/16W	R816	1-216-830-11	RES-CHIP	5.6K 5% 1/16W
R744	1-216-821-11	RES-CHIP	1K 5% 1/16W	R817	1-216-845-11	RES-CHIP	100K 5% 1/16W
R745	1-216-841-11	RES-CHIP	47K 5% 1/16W	R818	1-216-833-11	RES-CHIP	10K 5% 1/16W
R746	1-216-809-11	RES-CHIP	100 5% 1/16W	R819	1-216-827-11	RES-CHIP	3.3K 5% 1/16W
R747	1-216-809-11	RES-CHIP	100 5% 1/16W	R820	1-216-838-11	RES-CHIP	27K 5% 1/16W
R748	1-216-833-11	RES-CHIP	10K 5% 1/16W	R821	1-216-827-11	RES-CHIP	3.3K 5% 1/16W
R749	1-216-849-11	RES-CHIP	220K 5% 1/16W	R823	1-216-835-11	RES-CHIP	15K 5% 1/16W
R750	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R824	1-216-838-11	RES-CHIP	27K 5% 1/16W
R751	1-216-821-11	RES-CHIP	1K 5% 1/16W	R825	1-216-827-11	RES-CHIP	3.3K 5% 1/16W
R752	1-216-821-11	RES-CHIP	1K 5% 1/16W	R826	1-216-830-11	RES-CHIP	5.6K 5% 1/16W
R753	1-216-809-11	RES-CHIP	100 5% 1/16W	R828	1-216-817-11	RES-CHIP	470 5% 1/16W
R754	1-216-809-11	RES-CHIP	100 5% 1/16W	R829	1-216-864-11	SHORT	0
R755	1-216-809-11	RES-CHIP	100 5% 1/16W	R830	1-216-849-11	RES-CHIP	220K 5% 1/16W
R756	1-216-809-11	RES-CHIP	100 5% 1/16W	R831	1-216-839-11	RES-CHIP	33K 5% 1/16W
R758	1-216-809-11	RES-CHIP	100 5% 1/16W	R832	1-216-817-11	RES-CHIP	470 5% 1/16W
R759	1-216-821-11	RES-CHIP	1K 5% 1/16W	R833	1-216-839-11	RES-CHIP	33K 5% 1/16W
R760	1-216-849-11	RES-CHIP	220K 5% 1/16W	R834	1-216-805-11	RES-CHIP	47 5% 1/16W
R761	1-216-849-11	RES-CHIP	220K 5% 1/16W	R835	1-216-837-11	RES-CHIP	22K 5% 1/16W
R762	1-216-845-11	RES-CHIP	100K 5% 1/16W	R836	1-216-864-11	SHORT	0
R763	1-216-815-11	RES-CHIP	330 5% 1/16W	R840	1-216-841-11	RES-CHIP	47K 5% 1/16W
R764	1-216-821-11	RES-CHIP	1K 5% 1/16W	R841	1-216-839-11	RES-CHIP	33K 5% 1/16W
R765	1-216-815-11	RES-CHIP	330 5% 1/16W	R842	1-216-817-11	RES-CHIP	470 5% 1/16W
R766	1-216-821-11	RES-CHIP	1K 5% 1/16W	R843	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R767	1-216-833-11	RES-CHIP	10K 5% 1/16W	R844	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R768	1-216-809-11	RES-CHIP	100 5% 1/16W	R845	1-216-817-11	RES-CHIP	470 5% 1/16W
R769	1-216-809-11	RES-CHIP	100 5% 1/16W	R848	1-216-836-11	RES-CHIP	18K 5% 1/16W
R770	1-216-845-11	RES-CHIP	100K 5% 1/16W	R849	1-216-836-11	RES-CHIP	18K 5% 1/16W
R771	1-216-809-11	RES-CHIP	100 5% 1/16W	R850	1-216-830-11	RES-CHIP	5.6K 5% 1/16W
R772	1-216-821-11	RES-CHIP	1K 5% 1/16W	R851	1-216-833-11	RES-CHIP	10K 5% 1/16W
R773	1-216-809-11	RES-CHIP	100 5% 1/16W	R852	1-216-833-11	RES-CHIP	10K 5% 1/16W
R774	1-216-809-11	RES-CHIP	100 5% 1/16W	R854	1-216-838-11	RES-CHIP	27K 5% 1/16W
R775	1-216-821-11	RES-CHIP	1K 5% 1/16W	R855	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R777	1-216-821-11	RES-CHIP	1K 5% 1/16W	R856	1-216-829-11	RES-CHIP	4.7K 5% 1/16W

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REF. NO.	PART NO.	DESCRIPTION			REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK
R857	1-216-838-11	RES-CHIP	27K	5%	1/16W			< VIBRATOR >			
R858	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	X1	1-577-110-11	VIBRATOR, CRYSTAL			
R859	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W	X301	1-567-505-11	OSCILLATOR, CRYSTAL			
R860	1-249-389-11	CARBON	4.7	5%	1/4W	X302	1-767-179-31	VIBRATOR, SERAMIC			
R861	1-249-389-11	CARBON	4.7	5%	1/4W	X303	1-567-505-11	OSCILLATOR, CRYSTAL			
R862	1-216-839-11	RES-CHIP	33K	5%	1/16W	X304	1-767-179-31	VIBRATOR, SERAMIC			
R863	1-216-841-11	RES-CHIP	47K	5%	1/16W	X305	1-781-282-11	VIBRATOR, CERAMIC			
R864	1-216-839-11	RES-CHIP	33K	5%	1/16W	X306	1-767-989-11	VIBRATOR, CERAMIC			
R865	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W	X307	1-760-895-21	VIBRATOR, CERAMIC			
R866	1-216-841-11	RES-CHIP	47K	5%	1/16W	X701	1-579-358-21	VIBLATOR, CRYSTAL			
R867	1-216-837-11	RES-CHIP	22K	5%	1/16W	*****					
R868	1-216-837-11	RES-CHIP	22K	5%	1/16W	* A-1348-038-A D BOARD, COMPLETE *****					
R869	1-216-834-11	RES-CHIP	12K	5%	1/16W						
R870	1-216-841-11	RES-CHIP	47K	5%	1/16W						
R871	1-216-809-11	RES-CHIP	100	5%	1/16W						
R872	1-216-809-11	RES-CHIP	100	5%	1/16W		3-710-578-01	COVER, VOLUME, 6 MOLD			
							4-382-854-11	SCREW (M3X10), P, SW (+)			
R873	1-216-829-11	RES-CHIP	4.7K	5%	1/16W		7-682-952-09	SCREW +PSW 3X16			
R874	1-216-841-11	RES-CHIP	47K	5%	1/16W	< CAPACITOR >					
R875	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	C8001	1-137-372-11	MYLAR	0.022UF	5%	50V
R876	1-216-841-11	RES-CHIP	47K	5%	1/16W	C8002	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R877	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	C8003	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
						C8004	1-104-666-11	ELECT	220UF	20%	25V
R878	1-216-821-11	RES-CHIP	1K	5%	1/16W	C8005	1-126-942-61	ELECT	1000UF	20%	25V
R879	1-216-821-11	RES-CHIP	1K	5%	1/16W	C8006	1-126-942-61	ELECT	1000UF	20%	25V
R880	1-216-809-11	RES-CHIP	100	5%	1/16W	C8007	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R881	1-216-809-11	RES-CHIP	100	5%	1/16W	C8008	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R882	1-216-809-11	RES-CHIP	100	5%	1/16W	C8009	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
R883	1-216-832-11	RES-CHIP	8.2K	5%	1/16W	C8010	1-136-177-00	FILM	1UF	5%	50V
R884	1-216-833-11	RES-CHIP	10K	5%	1/16W	C8011	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R885	1-216-833-11	RES-CHIP	10K	5%	1/16W	C8012	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
R886	1-216-833-11	RES-CHIP	10K	5%	1/16W	C8013	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R887	1-216-821-11	RES-CHIP	1K	5%	1/16W	C8014	1-104-665-11	ELECT	100UF	20%	25V
R888	1-216-849-11	RES-CHIP	220K	5%	1/16W	C8015	1-126-969-11	ELECT	220UF	20%	50V
R889	1-216-807-11	RES-CHIP	68	5%	1/16W	C8016	1-104-665-11	ELECT	100UF	20%	25V
R890	1-216-807-11	RES-CHIP	68	5%	1/16W	C8017	1-162-964-11	CERAMIC CHIP	0.001UF	10%	50V
R891	1-216-807-11	RES-CHIP	68	5%	1/16W	C8018	1-126-964-11	ELECT	10UF	20%	50V
R892	1-216-837-11	RES-CHIP	22K	5%	1/16W	C8023	1-106-220-00	MYLAR	0.1UF	10%	100V
						C8024	1-137-372-11	MYLAR	0.022UF	5%	50V
R893	1-216-857-11	RES-CHIP	1M	5%	1/16W	C8025	1-126-968-11	ELECT	100UF	20%	50V
R895	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	C8026	1-126-968-11	ELECT	100UF	20%	50V
R896	1-216-864-11	SHORT	0			C8028	1-126-968-11	ELECT	100UF	20%	50V
R897	1-216-821-11	RES-CHIP	1K	5%	1/16W	C8029	1-126-968-11	ELECT	100UF	20%	50V
R898	1-216-805-11	RES-CHIP	47	5%	1/16W	C8031	1-107-636-11	ELECT	10UF	20%	160V
R899	1-216-821-11	RES-CHIP	1K	5%	1/16W	< NETWORK RESISTOR >					
RB1	1-233-576-11	RES, CHIP NETWORK 100				C8032	1-126-968-11	ELECT	100UF	20%	50V
RB2	1-233-576-11	RES, CHIP NETWORK 100				C8033	1-126-968-11	ELECT	100UF	20%	50V
RB3	1-233-576-11	RES, CHIP NETWORK 100				C8036	1-126-968-11	ELECT	100UF	20%	50V
RB4	1-233-576-11	RES, CHIP NETWORK 100				C8037	1-126-968-11	ELECT	100UF	20%	50V
RB5	1-233-576-11	RES, CHIP NETWORK 100				C8040	1-115-349-51	CERAMIC	0.01UF		2KV
RB6	1-233-576-11	RES, CHIP NETWORK 100				C8045	1-126-965-11	ELECT	22UF	20%	50V
						C8046	1-126-965-11	ELECT	22UF	20%	50V
		< TUNER >				C8047	1-162-974-11	CERAMIC CHIP	0.01UF		50V
TU1	8-598-430-50	TUNER, FSS BTF-FA401				C8048	1-126-965-11	ELECT	22UF	20%	50V
TU2	8-598-542-20	TUNER, FSS BTF-WA412				C8049	1-162-974-11	CERAMIC CHIP	0.01UF		50V
						C8050	1-126-965-11	ELECT	22UF	20%	50V
						C8051	1-102-038-00	CERAMIC	0.001UF		500V

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C8052	1-126-965-11	ELECT	22UF 20% 50V	C8110	1-126-960-11	ELECT	1UF 20% 50V
C8053	1-162-974-11	CERAMIC CHIP	0.01UF 50V	C8111	1-126-960-11	ELECT	1UF 20% 50V
C8054	1-162-974-11	CERAMIC CHIP	0.01UF 50V	C8112	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
C8055	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C8113	1-130-495-00	MYLAR	0.1UF 5% 50V
C8056	1-107-652-11	ELECT	10UF 20% 250V	C8114	1-125-473-11	ELECT(BLOCK)	1000UF 20% 160V
C8057	1-126-959-11	ELECT	0.47UF 20% 50V	C8115	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C8058	1-164-230-11	CERAMIC CHIP	220PF 5% 50V	C8116	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C8059	1-127-715-91	CERAMIC CHIP	0.22UF 10% 16V	C8117	1-102-038-00	CERAMIC	0.001UF 500V
C8060	1-104-665-11	ELECT	100UF 20% 25V	C8118	1-136-189-00	MYLAR	0.1UF 10% 250V
C8061	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C8119	1-164-156-11	CERAMIC CHIP	0.1UF 25
C8062	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C8120	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C8063	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C8121	1-115-349-51	CERAMIC	0.01UF 2KV
C8064	1-107-636-11	ELECT	10UF 20% 160V	C8122	1-126-934-11	ELECT	220UF 20% 16V
C8065	1-106-383-00	MYLAR	0.047UF 10% 200V	C8123	1-107-444-11	CERAMIC	100PF 10% 2KV
C8066	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C8124	1-117-642-11	FILM	8200PF 3% 1.2KV
C8067	1-104-665-11	ELECT	100UF 20% 25V	C8125	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C8068	1-102-038-00	CERAMIC	0.001UF 500V	C8126	1-106-357-00	MYLAR	0.0039UF 99% 200V
C8069	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C8127	1-126-942-61	ELECT	1000UF 20% 25V
C8070	1-126-964-11	ELECT	10UF 20% 50V	C8129	1-137-150-11	MYLAR	0.01UF 5% 50V
C8071	1-126-964-11	ELECT	10UF 20% 50V	C8131	1-128-582-11	ELECT	10UF 20% 100V
C8072	1-126-964-11	ELECT	10UF 20% 50V	C8132	1-126-942-61	ELECT	1000UF 20% 25V
C8073	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C8133	1-107-649-11	ELECT	2.2UF 20% 250V
C8074	1-104-665-11	ELECT	100UF 20% 25V	C8135	1-109-961-11	FILM	0.75UF 5% 250V
C8075	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C8136	1-130-495-00	MYLAR	0.1UF 5% 50V
C8076	1-128-551-11	ELECT	22UF 20% 25V	C8137	1-126-942-61	ELECT	1000UF 20% 25V
C8077	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C8138	1-162-964-11	CERAMIC CHIP	0.001UF 10% 50V
C8078	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	C8139	1-126-964-11	ELECT	10UF 20% 50V
C8079	1-126-964-11	ELECT	10UF 20% 50V	C8142	1-117-664-11	FILM	0.27UF 5% 250V
C8080	1-126-964-11	ELECT	10UF 20% 50V	C8143	1-126-960-11	ELECT	1UF 20% 50V
C8081	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	C8148	1-104-665-11	ELECT	100UF 20% 25V
C8082	1-165-176-11	CERAMIC CHIP	0.047UF 10% 16V	C8150	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C8083	1-130-495-00	MYLAR	0.1UF 5% 50V	C8153	1-126-960-11	ELECT	1UF 20% 50V
C8084	1-130-992-11	FILM	0.022UF 5% 50V	< CONNECTOR >			
C8085	1-162-924-11	CERAMIC CHIP	56PF 5% 50V	CN8002*	1-779-890-11	CONNECTOR, BOARD TO BOARD	10P
C8086	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	CN8003*	1-691-135-11	PIN, CONNECTOR (PC BOARD)	4P
C8087	1-126-960-11	ELECT	1UF 20% 50V	CN8004*	1-779-890-11	CONNECTOR, BOARD TO BOARD	10P
C8088	1-126-964-11	ELECT	10UF 20% 50V	CN8005*	1-779-890-11	CONNECTOR, BOARD TO BOARD	10P
C8089	1-107-444-11	CERAMIC	100PF 10% 2KV	CN8006*	1-779-890-11	CONNECTOR, BOARD TO BOARD	10P
C8090	1-126-960-11	ELECT	1UF 20% 50V	CN8007*	1-564-506-11	PLUG, CONNECTOR	3P
C8091	1-104-665-11	ELECT	100UF 20% 25V	CN8008*	1-564-506-11	PLUG, CONNECTOR	3P
C8092	1-117-640-11	FILM	6800PF 3% 1.2KV	CN8009*	1-564-506-11	PLUG, CONNECTOR	3P
C8093	1-107-648-91	ELECT	100UF 20% 160V	CN8010*	1-564-507-11	PLUG, CONNECTOR	4P
C8094	1-104-665-11	ELECT	100UF 20% 25V	CN8011*	1-564-507-11	PLUG, CONNECTOR	4P
C8095	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	CN8012*	1-564-507-11	PLUG, CONNECTOR	4P
C8096	1-136-684-51	MYLAR	0.0022UF 10% 100V	CN8013*	1-766-177-11	PIN, CONNECTOR (PC BOARD)	9P
C8097	1-162-131-11	CERAMIC	220PF 10% 2KV	CN8015*	1-506-371-00	PIN, CONNECTOR	2P
C8098	1-162-131-11	CERAMIC	220PF 10% 2KV	CN8016*	1-564-507-11	PLUG, CONNECTOR	4P
C8099	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	CN8018*	1-580-689-11	PIN, CONNECTOR (PC BOARD)	4P
C8100	1-126-961-11	ELECT	2.2UF 20% 50V	CN8019*	1-580-689-11	PIN, CONNECTOR (PC BOARD)	4P
C8102	1-102-038-00	CERAMIC	0.001UF 500V	CN8020*	1-580-689-11	PIN, CONNECTOR (PC BOARD)	4P
C8103	1-126-964-11	ELECT	10UF 20% 50V	CN8021*	1-506-371-00	PIN, CONNECTOR	2P
C8104	1-162-965-11	CERAMIC CHIP	0.0015UF 10% 50V	CN8022*	1-564-510-11	PLUG, CONNECTOR	7P
C8105	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	CN8023*	1-564-507-11	PLUG, CONNECTOR	4P
C8106	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V				
C8107	1-136-187-11	MYLAR	0.047UF 10% 250V				
C8108	1-126-964-11	ELECT	10UF 20% 50V				
C8109	1-162-924-11	CERAMIC CHIP	56PF 5% 50V				

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KP-51HW40/57HW40
RM-Y909 RM-Y909

D

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
< DIODE >				FB8016	1-469-869-21	FERRITE	0UH
D8001	8-719-109-98	RD5.6ESB2		FB8017	1-469-869-21	FERRITE	0UH
D8002	8-719-110-17	RD20ES-B2		FB8018	1-469-869-21	FERRITE	0UH
D8003	8-719-924-13	MTZJ-T-77-22B		FB8019	1-410-397-21	FERRITE	1.1UH
D8004	8-719-908-03	GP08D		FB8020	1-414-229-11	FERRITE	0UH
D8005	8-719-991-33	ISS133T-77		FB8021	1-410-397-21	FERRITE	1.1UH
D8006	8-719-991-33	ISS133T-77		FB8022	1-410-396-41	FERRITE	0.45UH
D8007	8-719-991-33	ISS133T-77		FB8023	1-410-396-41	FERRITE	0.45UH
D8008	8-719-991-33	ISS133T-77		FB8024	1-469-869-21	FERRITE	0UH
D8009	8-719-991-33	ISS133T-77		< IC >			
D8010	8-719-991-33	ISS133T-77		IC8001	8-749-019-08	IC STK392-560	
D8011	8-719-991-33	ISS133T-77		IC8002	8-749-019-08	IC STK392-560	
D8012	8-719-991-33	ISS133T-77		IC8003	8-759-593-33	LA78045	
D8013	8-719-109-85	RD5.1ESB2		IC8004	8-759-077-88	AN77L12-TA	
D8014	8-719-109-85	RD5.1ESB2		IC8005	8-759-585-82	BA9759F-E2	
D8015	8-719-991-33	ISS133T-77		IC8006	8-759-700-07	NJM2903M	
D8016	8-719-991-33	ISS133T-77		IC8007	8-759-700-07	NJM2903M	
D8019	8-719-991-33	ISS133T-77		IC8008	8-759-585-82	BA9759F-E2	
D8020	8-719-991-33	ISS133T-77		IC8009	8-759-803-42	LA6500-FA	
D8021	8-719-061-21	FMQ-G5FMS		IC8012	8-759-701-01	NJM2904M	
D8022	8-719-991-33	ISS133T-77		< COIL >			
D8023	8-719-991-33	ISS133T-77		L8001	1-412-533-21	INDUCTOR	47UH
D8024	8-719-110-41	RD15ES-B2		L8002	1-412-533-21	INDUCTOR	47UH
D8025	8-719-991-33	ISS133T-77		L8003	1-412-525-31	INDUCTOR	10UH
D8026	8-719-109-89	RD5.6ESB2		L8004	1-412-533-21	INDUCTOR	47UH
D8027	8-719-028-45	D2L20U		L8005	1-412-533-21	INDUCTOR	47UH
D8028	8-719-110-48	RD15ES-B2		L8006	1-412-525-31	INDUCTOR	10UH
D8029	8-719-028-45	D2L20U		L8007	1-412-533-21	INDUCTOR	47UH
D8030	8-719-028-45	D2L20U		L8008	1-412-533-21	INDUCTOR	47UH
D8031	8-719-110-49	RD18ES-B2		L8009	1-412-525-31	INDUCTOR	10UH
D8032	8-719-302-43	EL1Z		L8010	1-414-187-11	INDUCTOR	47UH
D8033	8-719-028-72	RGP02-17EL-6433		L8011	1-412-525-31	INDUCTOR	10UH
D8034	6-500-004-01	DIODE ERD07-15L		L8012	1-414-187-11	INDUCTOR	47UH
D8035	6-500-004-01	DIODE ERD07-15L		L8013	1-414-856-11	INDUCTOR	10UH
D8036	8-719-110-41	RD15ES-B2		L8014	1-414-189-31	INDUCTOR	100UH
D8037	8-719-028-45	D2L20U		L8015	1-414-189-31	INDUCTOR	100UH
D8038	8-719-302-43	EL1Z		L8016	1-412-537-31	INDUCTOR	100UH
D8039	8-719-028-72	RGP02-17EL-6433		L8017	1-414-856-11	INDUCTOR	10UH
D8043	8-719-991-33	ISS133T-77		L8018	1-406-663-21	INDUCTOR	47UH
D8045	8-719-908-03	GP08D		L8019	1-419-352-11	COIL, HORIZONTAL LINEARITY	
D8046	8-719-991-33	ISS133T-77		L8020	1-412-525-31	INDUCTOR	10UH
D8047	8-719-991-33	ISS133T-77		L8021	1-406-659-11	INDUCTOR	10UH
< FERRITE BEAD >				L8022	1-412-552-11	INDUCTOR	2.2mmH
FB8001	1-410-397-21	FERRITE	1.1UH	L8023	1-414-856-11	INDUCTOR	10UH
FB8002	1-410-397-21	FERRITE	1.1UH	L8024	1-414-856-11	INDUCTOR	10UH
FB8003	1-414-229-11	FERRITE	0UH	L8025	1-414-856-11	INDUCTOR	10UH
FB8004	1-216-864-11	SHORT	0	L8026	1-414-856-11	INDUCTOR	10UH
FB8005	1-469-869-21	FERRITE	0UH	L8027	1-233-510-11	FILTER, DC LINE	
FB8006	1-469-869-21	FERRITE	0UH	< NEON LAMP >			
FB8008	1-410-396-41	FERRITE	0.45UH	NL8001	1-517-778-21	LAMP, NEON	
FB8009	1-410-396-41	FERRITE	0.45UH	< IC LINK >			
FB8010	1-410-396-41	FERRITE	0.45UH	PS8001 Δ	1-533-595-31	LINK, IC	
FB8011	1-410-396-41	FERRITE	0.45UH				
FB8014	1-469-869-21	FERRITE	0UH				
FB8015	1-469-869-21	FERRITE	0UH				

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
PS8002 Δ	1-533-595-31	LINK, IC		R8017	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
PS8003 Δ	1-533-595-31	LINK, IC		R8018	1-216-821-11	RES-CHIP	1K 5% 1/16W
PS8004 Δ	1-533-595-31	LINK, IC		R8019	1-218-712-11	METAL CHIP	6.8K 0.5% 1/16W
PS8005 Δ	1-533-595-31	LINK, IC		R8020	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
				R8021	1-216-833-11	RES-CHIP	10K 5% 1/16W
PS8006 Δ	1-533-595-31	LINK, IC		R8022	1-216-839-11	RES-CHIP	33K 5% 1/16W
PS8007 Δ	1-533-595-31	LINK, IC		R8023	1-216-833-11	RES-CHIP	10K 5% 1/16W
< TRANSISTOR >				R8024	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q8001	8-729-422-27	2SD601A-Q		R8025	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q8002	8-729-046-80	2SC4634LS-CB11		R8026	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q8003	8-729-026-49	2SA1037AK-T146-R		R8029	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q8004	8-729-026-49	2SA1037AK-T146-R		R8030	1-215-903-11	METAL OXIDE	68K 5% 2W
Q8005	8-729-026-49	2SA1037AK-T146-R		R8031	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
				R8032	1-216-821-11	RES-CHIP	1K 5% 1/16W
Q8007	8-729-046-80	2SC4634LS-CB11		R8033	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q8008	8-729-207-89	2SA1358-Y		R8034	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q8009	8-729-207-82	2SC3421-Y		R8035	1-218-694-11	METAL CHIP	1.2K 0.5% 1/16W
Q8010	8-729-422-27	2SD601A-Q		R8036	1-214-800-11	METAL	2.2 1% 1/2W
Q8011	8-729-026-49	2SA1037AK-T146-R		R8037	1-215-903-11	METAL OXIDE	68K 5% 2W
				R8038	1-216-809-11	RES-CHIP	100 5% 1/16W
Q8014	8-729-422-27	2SD601A-Q		R8039	1-214-800-11	METAL	2.2 1% 1/2W
Q8015	8-729-422-27	2SD601A-Q		R8040	1-215-913-11	METAL OXIDE	220 5% 3W
Q8016	8-729-422-27	2SD601A-Q		R8041	1-218-709-11	METAL CHIP	5.1K 0.5% 1/16W
Q8019	8-729-026-49	2SA1037AK-T146-R		R8042	1-216-826-11	RES-CHIP	2.7K 5% 1/16W
Q8020	8-729-422-27	2SD601A-Q		R8043	1-218-708-11	METAL CHIP	4.7K 0.5% 1/16W
				R8044	1-218-712-11	METAL CHIP	6.8K 0.5% 1/16W
Q8021	8-729-422-27	2SD601A-Q		R8045	1-214-808-11	METAL	4.7 1% 1/2W
Q8022	8-729-422-27	2SD601A-Q		R8046	1-214-808-11	METAL	4.7 1% 1/2W
Q8023	8-729-048-47	2SC2688(5)-LK		R8047	1-215-857-71	METAL OXIDE	10 5% 1W
Q8024	8-729-056-50	TRANSISTOR 2SC5681-YB		R8048	1-414-189-31	INDUCTOR	100UH
Q8027	8-729-050-13	2SJ585LS-CC11		R8049	1-414-189-31	INDUCTOR	100UH
				R8050	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q8028	8-729-422-27	2SD601A-Q		R8051	1-214-808-11	METAL	4.7 1% 1/2W
Q8029	8-729-422-27	2SD601A-Q		R8053	1-214-808-11	METAL	4.7 1% 1/2W
Q8030	8-729-026-49	2SA1037AK-T146-R		R8055	1-218-748-11	METAL CHIP	220K 0.5% 1/16W
Q8031	8-729-422-27	2SD601A-Q		R8056	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q8032	8-729-422-27	2SD601A-Q		R8057	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
				R8058	1-216-809-11	RES-CHIP	100 5% 1/16W
Q8035	8-729-050-13	2SJ585LS-CC11		R8059	1-214-808-11	METAL	4.7 1% 1/2W
Q8036	8-729-026-49	2SA1037AK-T146-R		R8060	1-214-808-11	METAL	4.7 1% 1/2W
Q8037	8-729-422-27	2SD601A-Q		R8061	1-216-390-11	METAL OXIDE	1.2 5% 3W
Q8038	8-729-038-10	TRANSISTOR 1MB12-140-F153A		R8062	1-260-107-11	CARBON	4.7K 5% 1/2W
Q8039	8-729-048-47	2SC2688(5)-LK		R8063	1-214-808-11	METAL	4.7 1% 1/2W
				R8064	1-214-808-11	METAL	4.7 1% 1/2W
Q8101	8-729-026-49	2SA1037AK-T146-R		R8065	1-260-328-11	CARBON	1K 5% 1/2W
< RESISTOR >				R8066	1-214-808-11	METAL	4.7 1% 1/2W
R8001	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R8067	1-214-808-11	METAL	4.7 1% 1/2W
R8002	1-216-809-11	RES-CHIP	100 5% 1/16W	R8068	1-216-809-11	RES-CHIP	100 5% 1/16W
R8003	1-216-809-11	RES-CHIP	100 5% 1/16W	R8069	1-214-808-11	METAL	4.7 1% 1/2W
R8004	1-216-809-11	RES-CHIP	100 5% 1/16W	R8070	1-214-808-11	METAL	4.7 1% 1/2W
R8005	1-215-875-11	METAL OXIDE	10K 5% 1W	R8071	1-215-381-00	METAL	22 1% 1/4W
				R8073	1-214-808-11	METAL	4.7 1% 1/2W
R8007	1-216-809-11	RES-CHIP	100 5% 1/16W	R8075	1-214-808-11	METAL	4.7 1% 1/2W
R8008	1-216-809-11	RES-CHIP	100 5% 1/16W	R8076	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R8009	1-216-809-11	RES-CHIP	100 5% 1/16W	R8077	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R8010	1-260-131-11	CARBON	470K 5% 1/2W	R8078	1-214-808-11	METAL	4.7 1% 1/2W
R8011	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R8079	1-214-808-11	METAL	4.7 1% 1/2W
R8012	1-216-829-11	RES-CHIP	4.7K 5% 1/16W				
R8013	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W				
R8014	1-218-709-11	METAL CHIP	5.1K 0.5% 1/16W				
R8015	1-216-837-11	RES-CHIP	22K 5% 1/16W				
R8016	1-216-829-11	RES-CHIP	4.7K 5% 1/16W				

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R8080	1-216-353-00	METAL OXIDE	2.2 5% 1W	R8139	1-216-827-11	RES-CHIP	3.3K 5% 1/16W
R8081	1-214-808-11	METAL	4.7 1% 1/2W	R8140	1-216-833-11	RES-CHIP	10K 5% 1/16W
R8082	1-214-808-11	METAL	4.7 1% 1/2W	R8141	1-216-827-11	RES-CHIP	3.3K 5% 1/16W
R8083	1-216-821-11	RES-CHIP	1K 5% 1/16W	R8142	1-216-833-11	RES-CHIP	10K 5% 1/16W
R8084	1-216-833-11	RES-CHIP	10K 5% 1/16W	R8143	1-218-734-11	METAL CHIP	56K 0.5% 1/16W
R8085	1-214-808-11	METAL	4.7 1% 1/2W	R8144	1-216-809-11	RES-CHIP	100 5% 1/16W
R8086	1-214-808-11	METAL	4.7 1% 1/2W	R8145	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R8087	1-249-385-11	CARBON	2.2 5% 1/4W	R8146	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R8088	1-249-385-11	CARBON	2.2 5% 1/4W	R8147	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W
R8089	1-214-808-11	METAL	4.7 1% 1/2W	R8148	1-216-845-11	RES-CHIP	100K 5% 1/16W
R8090	1-214-808-11	METAL	4.7 1% 1/2W	R8149	1-215-905-11	METAL OXIDE	10 5% 3W
R8091	1-214-808-11	METAL	4.7 1% 1/2W	R8150	1-218-740-11	METAL CHIP	100K 0.5% 1/16W
R8092	1-214-808-11	METAL	4.7 1% 1/2W	R8151	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
R8093	1-214-808-11	METAL	4.7 1% 1/2W	R8152	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R8094	1-214-808-11	METAL	4.7 1% 1/2W	R8153	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
R8095	1-216-801-11	RES-CHIP	22 5% 1/16W	R8154	1-218-728-11	METAL CHIP	33K 0.5% 1/16W
R8096	1-216-801-11	RES-CHIP	22 5% 1/16W	R8155	1-215-469-00	METAL	100K 1% 1/4W
R8097	1-214-808-11	METAL	4.7 1% 1/2W	R8156	1-215-469-00	METAL	100K 1% 1/4W
R8098	1-214-808-11	METAL	4.7 1% 1/2W	R8157	1-218-738-11	METAL CHIP	82K 0.5% 1/16W
R8099	1-218-740-11	METAL CHIP	100K 0.5% 1/16W	R8159	1-216-834-11	RES-CHIP	12K 5% 1/16W
R8100	1-216-475-11	METAL OXIDE	120 5% 3W	R8160	1-249-393-11	CARBON	10 5% 1/4W
R8101	1-216-475-11	METAL OXIDE	120 5% 3W	R8161	1-216-841-11	RES-CHIP	47K 5% 1/16W
R8102	1-216-833-11	RES-CHIP	10K 5% 1/16W	R8163	1-216-841-11	RES-CHIP	47K 5% 1/16W
R8103	1-216-816-11	RES-CHIP	390 5% 1/16W	R8164	1-218-734-11	METAL CHIP	56K 0.5% 1/16W
R8104	1-216-832-11	RES-CHIP	8.2K 5% 1/16W	R8165	1-249-425-11	CARBON	4.7K 5% 1/4W
R8105	1-214-808-11	METAL	4.7 1% 1/2W	R8166	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R8106	1-214-808-11	METAL	4.7 1% 1/2W	R8167	1-414-189-31	INDUCTOR	100UH
R8107	1-216-833-11	RES-CHIP	10K 5% 1/16W	R8168	1-216-809-11	RES-CHIP	100 5% 1/16W
R8108	1-216-821-11	RES-CHIP	1K 5% 1/16W	R8169	1-216-841-11	RES-CHIP	47K 5% 1/16W
R8109	1-216-814-11	RES-CHIP	270 5% 1/16W	R8170	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R8110	1-249-427-11	CARBON	6.8K 5% 1/4W	R8171	1-216-809-11	RES-CHIP	100 5% 1/16W
R8111	1-216-819-11	RES-CHIP	680 5% 1/16W	R8172	1-249-405-11	CARBON	100 5% 1/4W
R8112	1-216-824-11	RES-CHIP	1.8K 5% 1/16W	R8173	1-216-841-11	RES-CHIP	47K 5% 1/16W
R8113	1-216-475-11	METAL OXIDE	120 5% 3W	R8174	1-249-425-11	CARBON	4.7K 5% 1/4W
R8114	1-216-475-11	METAL OXIDE	120 5% 3W	R8176	1-218-740-11	METAL CHIP	100K 0.5% 1/16W
R8115	1-216-475-11	METAL OXIDE	120 5% 3W	R8178	1-216-841-11	RES-CHIP	47K 5% 1/16W
R8116	1-216-475-11	METAL OXIDE	120 5% 3W	R8179	1-414-189-31	INDUCTOR	100UH
R8117	1-216-833-11	RES-CHIP	10K 5% 1/16W	R8180	1-216-841-11	RES-CHIP	47K 5% 1/16W
R8118	1-216-833-11	RES-CHIP	10K 5% 1/16W	R8181	1-216-841-11	RES-CHIP	47K 5% 1/16W
R8119	1-216-833-11	RES-CHIP	10K 5% 1/16W	R8182	1-218-748-11	RES-CHIP	220K 5% 1/16W
R8120	1-216-833-11	RES-CHIP	10K 5% 1/16W	R8183	1-218-748-11	RES-CHIP	220K 5% 1/16W
R8121	1-216-809-11	RES-CHIP	100 5% 1/16W	R8184	1-216-833-11	RES-CHIP	10K 5% 1/16W
R8123	1-216-821-11	RES-CHIP	1K 5% 1/16W	R8187	1-216-833-11	RES-CHIP	10K 5% 1/16W
R8124	1-249-377-11	CARBON	0.47 5% 1/4W	R8189	1-249-377-11	CARBON	0.47 5% 1/4W
R8125	1-216-816-11	RES-CHIP	390 5% 1/16W	R8190	1-215-431-00	METAL	2.7K 1% 1/4W
R8126	1-216-823-11	RES-CHIP	1.5K 5% 1/16W	R8191	1-215-429-00	METAL	2.2K 1% 1/4W
R8128	1-216-833-11	RES-CHIP	10K 5% 1/16W	R8192	1-215-449-00	METAL	15K 1% 1/4W
R8129	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R8193	1-215-449-00	METAL	15K 1% 1/4W
R8130	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R8194	1-215-449-00	METAL	15K 1% 1/4W
R8131	1-216-833-11	RES-CHIP	10K 5% 1/16W	R8195	1-215-449-00	METAL	15K 1% 1/4W
R8132	1-216-833-11	RES-CHIP	10K 5% 1/16W	R8196	1-249-425-11	CARBON	4.7K 5% 1/4W
R8133	1-216-487-11	METAL OXIDE	12K 5% 3W	R8197	1-216-809-11	RES-CHIP	100 5% 1/16W
R8134	1-215-873-00	METAL OXIDE	4.7K 5% 1W	R8198	1-216-833-11	RES-CHIP	10K 5% 1/16W
R8135	1-216-487-11	METAL OXIDE	12K 5% 3W	R8201	1-249-397-11	CARBON	22 5% 1/4W
R8136	1-216-833-11	RES-CHIP	10K 5% 1/16W	R8202	1-260-092-11	CARBON	270 5% 1/2W
R8137	1-218-740-11	METAL CHIP	100K 0.5% 1/16W	R8203	1-249-377-11	CARBON	0.47 5% 1/4W
R8138	1-216-833-11	RES-CHIP	10K 5% 1/16W	R8205	1-249-377-11	CARBON	0.47 5% 1/4W

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The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

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- The components identified by \blacktriangle in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF. NO.	PART NO.	DESCRIPTION	REMARK			REF. NO.	PART NO.	DESCRIPTION	REMARK		
R8206	1-249-377-11	CARBON	0.47	5%	1/4W	C5022	1-126-947-11	ELECT	47UF	20%	25V
R8208	1-260-288-11	CARBON	0.47	5%	1/2W	C5024	1-126-947-11	ELECT	47UF	20%	25V
R8209	1-216-833-11	RES-CHIP	10K	5%	1/16W	C5025	1-126-947-11	ELECT	47UF	20%	25V
						C5026	1-126-947-11	ELECT	47UF	20%	25V
R8210	1-216-809-11	RES-CHIP	100	5%	1/16W						
R8211	1-215-906-11	METAL OXIDE	15	5%	3W	C5027	1-126-951-11	ELECT	470UF	20%	35V
R8212	1-215-907-11	METAL OXIDE	22	5%	3W	C5028	1-126-951-11	ELECT	470UF	20%	35V
R8213	1-216-821-11	RES-CHIP	1K	5%	1/16W	C5029	1-107-639-11	ELECT	47UF	20%	160V
R8216	1-216-833-11	RES-CHIP	10K	5%	1/16W	C5030	1-126-947-11	ELECT	47UF	20%	25V
						C5031	1-126-768-11	ELECT	2200UF	20%	16V
R8217	1-216-821-11	RES-CHIP	1K	5%	1/16W						
R8218	1-260-123-11	CARBON	100K	5%	1/2W	C5038	1-126-947-11	ELECT	47UF	20%	25V
R8219	1-249-377-11	CARBON	0.47	5%	1/4W	C5039	1-126-947-11	ELECT	47UF	20%	25V
R8220	1-216-821-11	RES-CHIP	1K	5%	1/16W	C5040	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
R8223	1-218-748-11	METAL CHIP	220K	0.5%	1/16W	C5041	1-126-767-11	ELECT	1000UF	20%	16V
						C5042	1-126-963-11	ELECT	4.7UF	20%	50V
R8224	1-260-127-11	CARBON	220K	5%	1/2W						
R8225	1-260-292-11	CARBON	1	5%	1/2W	C5043	1-126-935-11	ELECT	470UF	20%	16V
R8228	1-260-314-11	CARBON	68	5%	1/2W	C5047	1-162-970-11	CERAMIC CHIP	0.01UF	10%	16V
R8230	1-218-751-11	METAL CHIP	300K	0.5%	1/16W	C5049	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
						C5050	1-128-554-11	ELECT	330UF	20%	63V
		< TRANSFORMER >				C5051	1-126-961-11	ELECT	2.2UF	20%	50V
T8001	1-435-142-11	TRANSFORMER, FERRITE (DFT)				C5053	1-126-967-11	ELECT	47UF	20%	50V
T8002	1-437-400-11	TRANSFORMER, FERRITE (HDT)				C5054	1-126-955-11	ELECT	4700UF	20%	35V
T8003	1-437-401-11	TRANSFORMER, FERRITE (HOT)				C5055	1-126-933-11	ELECT	100UF	20%	16V
T8004 Δ	1-437-399-11	TRANSFORMER, FERRITE (LOT)				C6001	1-126-967-11	ELECT	47UF	20%	50V
T8005 Δ	1-453-285-21	FBT ASSY, NX-4006//X4P4				C6002	1-104-666-11	ELECT	220UF	20%	25V
		< THERMISTOR >									
TH8001	1-800-193-00	THERMISTOR				C6004	1-126-967-11	ELECT	47UF	20%	50V
		< VARIABLE RESISTOR >				C6008	1-117-228-11	MYLAR	2.2UF	10%	450V
						C6012 Δ	1-119-888-51	CERAMIC	2200PF	20%	250V
						C6013 Δ	1-119-888-51	CERAMIC	2200PF	20%	250V
						C6014 Δ	1-104-708-11	MYLAR	0.47UF	20%	250V
⊠VR8001Δ 1-225-628-91 RES, VAR, ADJ,CERME 5K						C6015	1-161-964-91	CERAMIC	0.0047UF	250V	
⊠VR8002Δ 1-225-632-91 RES, VAR, ADJ, CERMET 100K						C6016	1-161-964-91	CERAMIC	0.0047UF	250V	
*****						C6017	1-162-964-11	CERAMIC CHIP	0.001UF	10%	50V
						C6018	1-162-974-11	CERAMIC CHIP	0.01UF	50V	
						C6019	1-126-968-11	ELECT	100UF	20%	50V
		* A-1316-566-A G BOARD, COMPLETE									
		*****				C6020	1-126-963-11	ELECT	4.7UF	20%	50V
						C6021	1-126-964-11	ELECT	10UF	20%	50V
		1-533-223-11 HOLDER, FUSE				C6022	1-161-964-91	CERAMIC	0.0047UF	250V	
		* 4-374-846-01 COVER, CAPACITOR, CAP TYPE				C6023	1-161-964-91	CERAMIC	0.0047UF	250V	
		4-382-854-11 SCREW (M3X10), P, SW (+)				C6025	1-136-479-11	FILM	0.001UF	2%	50V
		< CAPACITOR >									
C5001	1-164-645-11	CERAMIC	1000PF	10%	500V	C6029	1-136-165-00	FILM	0.1UF	5%	50V
C5002	1-164-645-11	CERAMIC	1000PF	10%	500V	C6030	1-126-947-11	ELECT	47UF	20%	25V
C5006	1-104-665-11	ELECT	100UF	20%	25V	C6031	1-137-750-11	ELECT	1500UF	20%	250V
C5007	1-164-645-11	CERAMIC	1000PF	10%	500V	C6032	1-137-750-11	ELECT	1500UF	20%	250V
C5008	1-164-645-11	CERAMIC	1000PF	10%	500V	C6041	1-125-969-91	CERAMIC	680PF	10%	1KV
C5009	1-126-953-11	ELECT	2200UF	20%	35V	C6042	1-125-969-91	CERAMIC	680PF	10%	1KV
C5010	1-126-953-11	ELECT	2200UF	20%	35V	C6043 Δ	1-104-706-11	MYLAR	0.22UF	20%	250V
C5011	1-164-645-11	CERAMIC	1000PF	10%	500V	C6046	1-126-968-11	ELECT	100UF	20%	50V
C5012	1-164-645-11	CERAMIC	1000PF	10%	500V	C6047	1-135-998-21	FILM	56000PF	3%	800V
C5015	1-115-758-11	ELECT	470UF	20%	16V						
C5016	1-126-942-61	ELECT	1000UF	20%	25V	CN5001*	1-564-508-11	PLUG, CONNECTOR 5P			
C5017	1-126-942-61	ELECT	1000UF	20%	25V	CN5002*	1-564-507-11	PLUG, CONNECTOR 4P			
C5018	1-126-952-11	ELECT	1000UF	20%	35V	CN5003*	1-564-510-11	PLUG, CONNECTOR 7P			
C5019	1-126-952-11	ELECT	1000UF	20%	35V	CN5004*	1-766-177-11	PIN, CONNECTOR (PC BOARD) 9P			
C5020	1-110-626-11	ELECT	330UF	20%	160V	CN5005	1-695-915-11	TAB (CONTACT)			
C5021	1-115-771-51	ELECT	0.0047F	20%	16V	CN5006	1-695-915-11	TAB (CONTACT)			
						CN5007	1-695-915-11	TAB (CONTACT)			

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
CN6005	1-580-843-11	PIN, CONNECTOR (POWER)		FB5006	1-410-396-41	FERRITE	0.45UH
		< DIODE >		FB6001	1-410-396-41	FERRITE	0.45UH
D5001	8-719-083-67	DIODE UDZSTE-1720B		FB6004	1-216-864-11	SHORT	0
D5002	8-719-060-89	D4SBS6-F		FB6005	1-216-864-11	SHORT	0
D5003	8-719-060-89	D4SBS6-F		FB6006	1-216-864-11	SHORT	0
D5004	8-719-083-45	DIODE 31DF4N-FC5		FB6007	1-216-864-11	SHORT	0
D5005	8-719-083-45	DIODE 31DF4N-FC5		FB6013	1-410-397-21	FERRITE	1.1UH
D5006	8-719-052-37	F10P04Q		FB6014	1-410-397-21	FERRITE	1.1UH
D5007	8-719-404-50	MA111-TX		FB6015	1-410-397-21	FERRITE	1.1UH
D5008	8-719-028-45	D2L20U		FB6016	1-410-397-21	FERRITE	1.1UH
D5009	8-719-028-45	D2L20U				< IC >	
D5010	8-719-200-31	21DQ05		IC501	8-749-012-13	DM-58	
D5011	8-719-404-50	MA111-TX		IC5002	8-759-103-93	UPC393C	
D5012	8-719-083-66	DIODE UDZSTE-1718B		IC5003	8-759-701-84	NJM7905FA	
D5013	8-719-069-56	UDZSTE-176.2B		IC5004	8-759-640-19	PQ1CG2032FZ	
D5014	8-719-404-50	MA111-TX		IC5005	8-759-198-31	UPC1093J-1-T	
D5015	8-719-404-50	MA111-TX		IC5006	8-759-504-46	PQ05RF1	
D5016	8-719-083-44	DIODE FSQ05A04		IC6003	8-759-670-30	MCZ3001D	
D5017	8-719-073-25	S1VBA20				< JUMPER RESISTOR >	
D5018	8-719-056-84	UDZ-TE-17-7.5B		JR5002	1-216-864-11	SHORT	0
D5019	8-719-404-50	MA111-TX		JR5003	1-216-864-11	SHORT	0
D5020	8-719-404-50	MA111-TX		JR5004	1-216-864-11	SHORT	0
D5021	8-719-404-50	MA111-TX				< COIL >	
D5022	8-719-404-50	MA111-TX		L5001	1-412-523-41	INDUCTOR	6.8UH
D5023	8-719-404-50	MA111-TX		L5002	1-412-523-41	INDUCTOR	6.8UH
D5024	8-719-404-50	MA111-TX		L5003	1-412-529-11	INDUCTOR	22UH
D5025	8-719-404-50	MA111-TX		L5004	1-412-531-31	INDUCTOR	33UH
D5026	8-719-404-50	MA111-TX		L5005	1-412-527-11	INDUCTOR	15UH
D5031	8-719-404-50	MA111-TX		L5006	1-412-533-21	INDUCTOR	47UH
D5033	8-719-404-50	MA111-TX		L5007	1-412-533-21	INDUCTOR	47UH
D5034	8-719-083-60	UDZSTE-174.7B		L5008	1-412-529-11	INDUCTOR	22UH
D6001	8-719-404-50	MA111-TX		L5009	1-412-529-11	INDUCTOR	22UH
D6002	8-719-948-45	ERA22-08		L5010	1-412-521-31	INDUCTOR	4.7UH
D6003	8-719-069-87	DTZ10B		L5011	1-412-521-31	INDUCTOR	4.7UH
D6004	8-719-404-50	MA111-TX		L5012	1-406-663-21	INDUCTOR	47UH
D6005	8-719-404-50	MA111-TX		L5013	1-412-525-31	INDUCTOR	10UH
D6006	8-719-063-70	D1NL20U		L5014	1-406-663-21	INDUCTOR	47UH
D6007	8-719-022-99	D6SB60L		L5015	1-424-862-11	INDUCTOR	33UH
D6009	8-719-083-60	UDZSTE-174.7B		L5016	1-406-663-21	INDUCTOR	47UH
D6011	8-719-404-50	MA111-TX		L5017	1-412-537-31	INDUCTOR	100UH
D6012	8-719-979-64	UF4005PKG23		L6001 Δ	1-437-479-11	TRANSFORMER, LINE FILTER	
D6019	8-719-083-60	UDZSTE-174.7B		L6002 Δ	1-437-479-11	TRANSFORMER, LINE FILTER	
D6023	8-719-068-00	ERC04-06SE		L6003	1-424-862-11	INDUCTOR	33UH
D6024	8-719-068-00	ERC04-06SE				< PHOTO COUPLER >	
D6030	8-719-063-70	D1NL20U		PH6001	8-749-924-35	ON3171-R	
		< FUSE >		PH6002 Δ	8-749-924-35	ON3171-R	
F6001 Δ	1-576-193-11	FUSE				< IC LINK >	
		< FERRITE BEAD >		PS5001 Δ	1-533-597-31	LINK, IC	
FB5001	1-410-396-41	FERRITE	0.45UH	PS5002 Δ	1-533-597-31	LINK, IC	
FB5002	1-410-396-41	FERRITE	0.45UH			< TRANSISTOR >	
FB5003	1-410-396-41	FERRITE	0.45UH	Q5001	8-729-050-50	TRANSISTOR 2SD1782K-T146-R	
FB5004	1-410-396-41	INDUCTOR	0.45UH				
FB5005	1-410-396-41	FERRITE	0.45UH				

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H2

H1

H3

REF. NO.	PART NO.	DESCRIPTION	REMARK		
< RESISTOR >					
R9201	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R9202	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R9203	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R9204	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R9205	1-218-688-11	METAL CHIP	680	0.5%	1/16W
R9206	1-218-688-11	METAL CHIP	680	0.5%	1/16W
R9207	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R9208	1-218-696-11	METAL CHIP	1.5K	0.5%	1/16W
R9209	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R9210	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W
R9211	1-218-712-11	METAL CHIP	6.8K	0.5%	1/16W
< SWITCH >					
S9201	1-572-198-11	SWITCH, KEYBOARD			
S9202	1-572-198-11	SWITCH, KEYBOARD			
S9203	1-572-198-11	SWITCH, KEYBOARD			
S9204	1-572-198-11	SWITCH, KEYBOARD			
S9205	1-572-198-11	SWITCH, KEYBOARD			
S9206	1-572-198-11	SWITCH, KEYBOARD			
S9207	1-572-198-11	SWITCH, KEYBOARD			
S9208	1-572-198-11	SWITCH, KEYBOARD			
S9209	1-572-198-11	SWITCH, KEYBOARD			
S9210	1-572-198-11	SWITCH, KEYBOARD			
S9211	1-572-198-11	SWITCH, KEYBOARD			
S9212	1-572-198-11	SWITCH, KEYBOARD			

* A-1377-041-A H1 BOARD, COMPLETE					

< CAPACITOR >					
C9101	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
< CONNECTOR >					
CN9101*	1-564-508-11	PLUG, CONNECTOR 5P			
CN9102*	1-564-506-11	PLUG, CONNECTOR 3P			
< DIODE >					
D9101	8-719-053-43	SLR-325VCT31			
D9102	8-719-053-43	SLR-325VCT31			
< IC >					
IC9101	8-719-066-43	GP1U28Y			
< RESISTOR >					
R9101	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9102	1-216-809-11	RES-CHIP	100	5%	1/16W
R9103	1-216-813-11	RES-CHIP	220	5%	1/16W
R9104	1-216-813-11	RES-CHIP	220	5%	1/16W
< SWITCH >					
S9101	1-571-532-21	SWITCH, TACTIL			

REF. NO.	PART NO.	DESCRIPTION	REMARK		
* A-1372-933-A H3 BOARD, COMPLETE					

< CAPACITOR >					
C9301	1-126-964-11	ELECT	10UF	20%	50V
C9302	1-126-964-11	ELECT	10UF	20%	50V
C9303	1-126-959-11	ELECT	0.47UF	20%	50V
C9304	1-126-959-11	ELECT	0.47UF	20%	50V
C9305	1-163-021-91	CERAMIC CHIP	0.01UF	10%	50V
< CONNECTOR >					
CN9301*	1-564-526-11	PLUG, CONNECTOR 11P			
< DIODE >					
D9301	8-719-110-17	RD10ESB2			
D9302	8-719-110-17	RD10ESB2			
D9303	8-719-110-17	RD10ESB2			
D9304	8-719-110-17	RD10ESB2			
D9305	8-719-110-17	RD10ESB2			
D9306	8-719-110-17	RD10ESB2			
< JACK >					
J9301	1-565-929-11	TERMINAL BLOCK, S 3P			
< RESISTOR >					
R9301	1-216-821-11	RES-CHIP	1K	5%	1/16W
R9302	1-216-853-11	RES-CHIP	470K	5%	1/16W
R9303	1-216-853-11	RES-CHIP	470K	5%	1/16W
R9304	1-218-285-11	RES-CHIP	75	5%	1/16W
R9305	1-218-285-11	RES-CHIP	75	5%	1/16W
R9306	1-218-285-11	RES-CHIP	75	5%	1/16W

MISCELLANEOUS					

△ 1-223-925-11 RESISTOR ASSY (HIGH-VOLTAGE) (FOCUS PACK)					
△ 1-451-535-11 COIL ASSY, VM					
△ 1-451-537-11 DEFLECTION YOKE					
1-529-403-31 SPEAKER (6.6cm)					
1-544-894-11 SPEAKER (13cm)					
* 1-556-945-21 CABLE, P-P					
* 1-557-056-31 CABLE, P-P					
1-771-787-11 SWITCH, RF ANTENNA					
△ 1-790-130-11 CORD, AC POWER(WITH CONNECTOR)					
△ 8-598-955-31 BLOCK ASSY, HV HVB-1031					
△ A-1502-021-A COUPLER (R) ASSY, CRT (57HW40)					
△ A-1502-022-A COUPLER (B) ASSY, CRT (57HW40)					
△ A-1502-023-A COUPLER (R) ASSY, CRT (51HW40)					
△ A-1502-024-A COUPLER (B) ASSY, CRT (51HW40)					
△ A-1502-025-A COUPLER (G) ASSY, CRT					

REF. NO.	PART NO.	DESCRIPTION	REMARK
ACCESSORIES & PACKING MATERIALS			

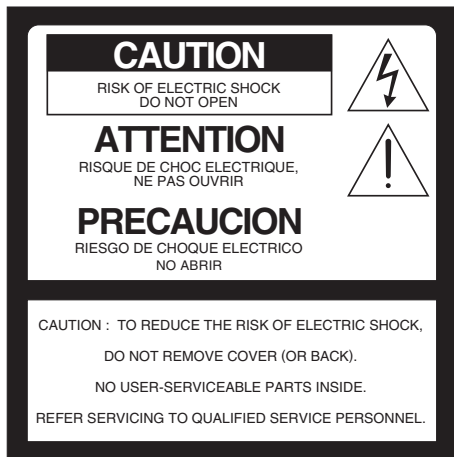
* 4-041-426-01	BAG, PROTECTION (51HW40)		
* 4-042-463-01	SHEET, PROTECTION		
* 4-076-420-01	BAG, PROTECTION (57HW40)		
* 4-081-682-01	TRAY (51HW40)		
* 4-081-683-01	INDIVIDUAL CARTON (51HW40)		
* 4-081-684-01	CUSHION (UPPER) (51HW40)		
* 4-081-685-01	CUSHION (LOWER) (51HW40)		
* 4-081-708-01	INDIVIDUAL CARTON (57HW40)		
* 4-081-709-01	TRAY (57HW40)		
* 4-081-710-01	CUSHION (UPPER) (57HW40)		
* 4-081-711-01	CUSHION (LOWER) (57HW40)		
4-084-488-11	MANUAL, INSTRUCTION		
4-084-488-21	MANUAL, INSTRUCTION		
4-084-488-31	MANUAL, INSTRUCTION		

REMOTE COMMANDER			

1-476-864-11	REMOTE COMMANDER (RM-Y909)		
4-081-888-01	LID, BATTERY CASE		

WARNING

To prevent fire or shock hazard, do not expose the projection TV to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

To prevent electric shock, do not use this polarized AC plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

CAUTION

When using TV games, computers, and similar products with your projection TV, or viewing a TV station whose logo always stays on the screen, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern such as a station logo is left on the screen for long periods of time, especially at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. These types of imprints are not covered by your warranty.

Note on Caption Vision

This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

Note on convergence adjustment

Before you use your projection TV, make sure to adjust convergence. For details, see “Adjusting the Convergence Automatically – FLASH FOCUS™ –” on page 33.

Note to CATV system installer

This reminder is provided to call the CATV system installer’s attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Use of this television receiver for other than private viewing of programs broadcast on UHF, VHF, transmitted by cable companies or satellite for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

NOTIFICATION

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ☐ Reorient or relocate the receiving antennas.
- ☐ Increase the separation between the equipment and receiver.
- ☐ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ☐ Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your warranty and your authority to operate this equipment.

CAUTION

How to reduce the risk of “Image Retention” on your Projection TV

Bright, stationary images such as TV station logos displayed on your TV can cause permanent damage to your TV, resulting in retention of the image in the picture.

Please take the following steps to reduce the risk of causing image retention:

View a variety of program sources or programming material.

Image retention can occur when bright stationary images such as TV station logos are viewed. Changing the program material viewed reduces the possibility that a single image will become imprinted on the picture tubes in your TV.

When viewing programs with stationary images, adjust the picture setting to reduce the “Picture” and “Brightness” levels. Image retention is accelerated by higher “Brightness” and higher “Picture” settings.

Please refer to your instruction manual for instructions on adjusting picture settings.

This will help you reduce the risk of causing image retention.

IMAGE RETENTION IS NOT COVERED BY YOUR WARRANTY

This document is for the remote control RM-Y909.

MODELS: KP-51HW40, KP-57HW40

Please keep this notice with the instruction manual.

Safety

- ☐ Operate the projection TV only on 120 V AC.
- ☐ The plug is designed, for safety purposes, to fit into the wall outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- ☐ If any liquid or solid object should fall inside the cabinet, unplug the projection TV immediately and have it checked by qualified service personnel before operating it further.
- ☐ If you will not be using the projection TV for several days, disconnect the power by pulling the plug itself. Never pull on the cord.

For details concerning safety precautions, see “Important Safeguards” on page 4.

Installing

- ☐ To prevent internal heat buildup, do not block the ventilation openings.
- ☐ Do not install the projection TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.

- ☐ Avoid operating the projection TV at temperature below 5°C (41°F).
- ☐ If the projection TV is transported directly from a cold to a warm location, or if the room temperature changes suddenly, the picture may be blurred or show poor color. In this case, please wait a few hours to let the moisture evaporate before turning on the projection TV.
- ☐ To obtain the best picture, do not expose the screen to direct illumination or direct sunlight. It is recommended to use spot lighting directed down from the ceiling or to cover the windows that face the screen with opaque drapery. It is desirable to install the projection TV in a room where the floor and walls are not of a reflective material.



As an ENERGY STAR® Partner, Sony Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

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ATTENTION

Pour prévenir les chocs électriques, ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames peuvent être insérées à fond sans en laisser aucune partie à découvert.

Owner's Record

The model and serial numbers are located at the rear of the projection TV, below the Sony logo, on the sticker, and also on the TV box (white label). Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. _____

Serial No. _____

Important Safeguards

For your protection, please read these instructions completely, and keep this manual for future reference.

Carefully observe and comply with all warnings, cautions and instructions placed on the set or described in the operating instructions or service manual.

WARNING

To guard against injury, the following basic safety precautions should be observed in the installation, use and servicing of the set.

Use

Power Sources

This set should be operated only from the type of power source indicated on the serial/model plate. If you are not sure of the type of electrical power supplied to your home, consult your dealer or local power company. For those sets designed to operate from battery power, refer to the operating instructions.



Grounding or Polarization

This set is equipped with a polarized AC power cord plug (a plug having one blade wider than the other), or with a three-wire grounding type plug (a plug having a third pin for grounding). Follow the instructions below:

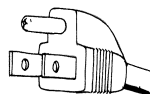
For the set with a polarized AC power cord plug

This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the polarized plug by forcing it in.



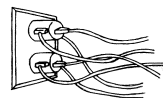
Alternate Warning for the set with a three-wire grounding type AC plug

This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the grounding plug.



Overloading

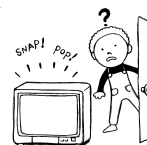
Do not overload wall outlets, extension cords or convenience receptacles beyond their capacity, since this can result in fire or electric shock.



Always turn the set off when it is not being used. When the set is left unattended and unused for long periods of time, unplug it from the wall outlet as a precaution against the possibility of an internal malfunction that could create a fire hazard.



If a snapping or popping sound from a TV set is continuous or frequent while the TV is operating, unplug the TV and consult your dealer or service technician. It is normal for some TV sets to make occasional snapping or popping sounds, particularly when being turned on or off.



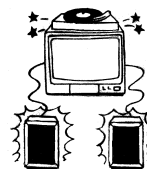
Object and Liquid Entry

Never push objects of any kind into the set through the cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the set.



Attachments

Do not use attachments not recommended by the manufacturer, as they may cause hazards.



Cleaning

Clean the cabinet of the projection TV with a dry soft cloth. To remove dust from the screen, wipe it gently with a soft cloth. Stubborn stains may be removed with a cloth slightly dampened with solution of mild soap and warm water. Never use strong solvents such as thinner or benzene for cleaning.



If the picture becomes dark after using the projection TV for a long period of time, it may be necessary to clean the inside of the projection TV. Consult qualified service personnel.

Installation

Water and Moisture

Do not use power-line operated sets near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.



Accessories

Do not place the set on an unstable cart, stand, table or shelf. The set may fall, causing serious injury to a child or an adult and serious damage to the set. Use only a cart or stand recommended by the manufacturer for the specific model of projection TV. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



Ventilation

The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of the set, and to protect it from overheating, these slots and openings must never be blocked or covered.

- ☐ Never cover the slots and openings with a cloth or other materials.
- ☐ Never block the slots and openings by placing the set on a bed, sofa, rug or other similar surface.
- ☐ Never place the set in a confined space, such as a bookcase or built-in cabinet, unless proper ventilation is provided.
- ☐ Do not place the set near or over a radiator or heat register, or where it is exposed to direct sunlight.



Power-Cord Protection

Do not allow anything to rest on or roll over the power cord, and do not place the set where the power cord is subject to wear or abuse.



Antennas

Outdoor Antenna Grounding

If an outdoor antenna is installed, follow the precautions below. An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits.

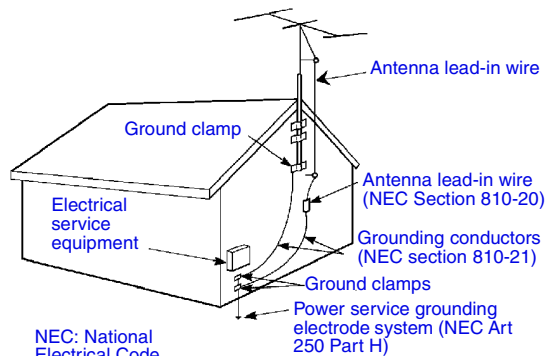
WHEN INSTALLING AN OUTDOOR ANTENNA SYSTEM, EXTREME CARE SHOULD BE TAKEN TO KEEP FROM CONTACTING SUCH POWER LINES OR CIRCUITS AS CONTACT WITH THEM IS ALMOST INVARIABLY FATAL.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.

Section 810 of the National Electrical Code (NEC) in USA and Section 54 of the Canadian Electrical Code in Canada provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Antenna Grounding According to the NEC

Refer to section 54-300 of Canadian Electrical Code for Antenna Grounding.



Lightning

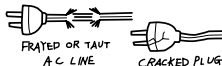
For added protection for this television receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the receiver due to lightning and power-line surges.

Service

Damage Requiring Service

Unplug the set from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- ☐ When the power cord or plug is damaged or frayed.
- ☐ If liquid has been spilled into the set.
- ☐ If the set has been exposed to rain or water.
- ☐ If the set has been subject to excessive shock by being dropped, or the cabinet has been damaged.
- ☐ If the set does not operate normally when following the operating instructions. Adjust only those controls that are specified in the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the set to normal operation.
- ☐ When the set exhibits a distinct change in performance, it indicates a need for service.



Safety Check

Upon completion of any service or repairs to the set, ask the service technician to perform routine safety checks (as specified by the manufacturer) to determine that the set is in safe operating condition, and to so certify. When the set reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the set.

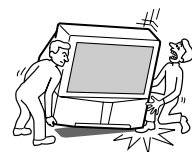


For Safety

Be careful when moving the projection TV

When you place the projection TV in position, be careful not to drop it on your foot or fingers.

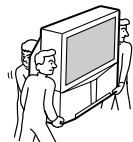
Watch your footing while installing the projection TV.



Carry the projection TV in the specified manner

If you carry the projection TV in a manner other than the specified manner and without the specified number of persons, it may drop and a serious injury may be caused. Be sure to follow the instructions mentioned below.

- ☐ Carry the projection TV with the specified number of persons. (see page 10)
- ☐ Do not carry the projection TV holding the speaker grill.
- ☐ Hold the projection TV tightly when carrying it.
- ☐



Servicing

Do not attempt to service the set by yourself since opening the cabinet may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.



Replacement Parts

When replacement parts are required, be sure the service technician certifies in writing that he has used replacement parts specified by the manufacturer that have the same characteristics as the original parts.

Unauthorized substitutions may result in fire, electric shock or other hazards.

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Introducing the Sony Projection TV

Presenting the Sony Projection TV

Thank you for purchasing the Sony Projection TV.
This manual is for models KP-51HW40 and KP-57HW40.
Model KP-51HW40 is used for illustration purposes.

Features

Some of the features that you will enjoy with your new projection TV include:

- ❑ **Hi Scan 1080™**: Enables you to receive the 1080i, 720p, 480p and 480i digital TV formats. By using the VIDEO 5/6 IN jacks, you can connect a DTV (digital television) receiver to view DTV programs.
- ❑ **DRC™ Multi-Function**: Unlike conventional line doublers, the DRC feature doubles vertical and horizontal lines, resulting in four times the density for quality sources such as DVD, Satellite and Digital camcorder.
- ❑ **CineMotion™**: Using the 2-3 Pull-Down technology, the CineMotion feature allows you to obtain a smooth picture movement when playing back movies or other video sources on film.
- ❑ **Twin View™**: Using Multi-Image Driver (MID-X), Twin View allows you to watch two programs side by side with the ability to zoom in on one picture and listen to the program in the selected window. You can watch pictures from two different sources (1080i, 720p, 480p or 480i) simultaneously.
- ❑ **Steady Sound™**: Equalizes volume levels so there is consistent output between programs and commercials.
- ❑ **Parental Control**: V-Chip technology allows parents to block unsuitable programming for younger viewers.
- ❑ **Component Video Inputs**: Offers the best video quality for DVD (480p, 480i) and Digital Set-top box (1080i, 720p, 480p, 480i) connections.
- ❑ **S-VIDEO Inputs**: Provides a high-quality image for connected equipment.
- ❑ **Favorite Channel Preview**: Preview up to eight favorite channels without leaving the current channel.
- ❑ **Scrolling Channel Index**: Allows you to view and choose channels from scrolling pictures without leaving the current channel.

- ❑ **Wide Screen Mode:** Allows you to watch 4:3 normal broadcasts in wide screen mode (16:9 aspect ratio).
- ❑ **Auto Wide:** Allows you to select the wide screen mode automatically.
- ❑ **Flash FocusTM:** Allows you to adjust convergence automatically.

Using this manual

We recommend that you carefully review the contents of the following three sections in the order shown to ensure that you fully understand the operation of your new projection TV.

1 Installing and Connecting the Projection TV

This section guides you through your initial setup. It shows you how to install your projection TV, to connect your new components and to connect the antenna and cable.

2 Using the Features

This section shows you how to begin using your new projection TV. It also shows you how to use your remote control functions.

3 Using the menus

This section teaches you how to access on-screen menus and adjust your projection TV settings.

Instructions in this manual are written for the remote control. Similar controls are also found on the projection TV console.

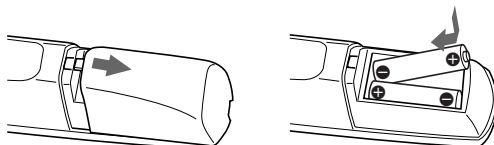
Installing and Connecting the Projection TV




Contents

The box contains your new projection TV, a remote control and two AA batteries. No peripheral cables are included. If you intend to add additional equipment to your projectionTV, please check the hookup instructions for your desired setup before you begin. You may need to purchase cables and/or splitters to complete the hookup properly.

Inserting Batteries into the Remote Control

Insert two size AA (R6) batteries (supplied) by matching the + and – on the batteries to the diagram inside the battery compartment.



-  Remove the batteries to avoid damage from possible battery leakage whenever you anticipate that the remote control will not be used for an extended period.
-  Handle the remote control with care. Avoid dropping it, getting it wet, or placing it in direct sunlight, near a heater, or where the humidity is high.
-  Your remote control can be programmed to operate most video equipment. (See “Programming the Remote Control” on page 68.)

Carrying Your Projection TV

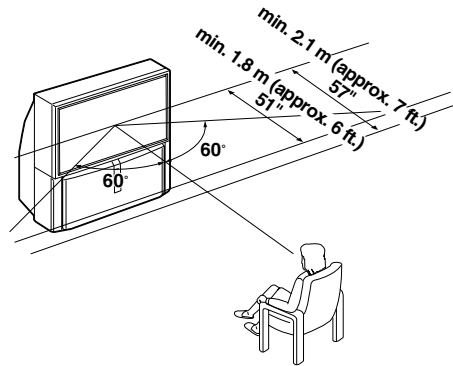
Carrying the projection TV requires three (3) or more people.

The projection TV has been equipped with casters for easy movement on a hard surface.

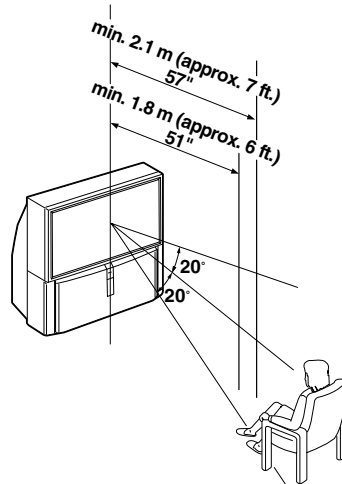
Please move your projection TV using the casters.

Installing the Projection TV

Recommended viewing area (Horizontal)



Recommended viewing area (Vertical)



Connector Types

You may find it necessary to use some of the following connector types during set up.

Coaxial cable

Standard TV cable and antenna cable

Plug Type



Screw-on Type



S Video cable

High quality video cable for enhanced picture quality



Audio/Video cable



Video - Yellow

Audio (Left) - White

Audio (Right) - Red

Some DVD Players are equipped with the following three video connectors:

Y - Green

P_B (C_B, C_b or B-Y) - Blue

P_R (C_R, C_r or R-Y) - Red

CONTROL S cable

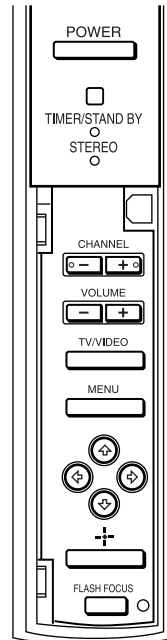
CONTROL S connections are exclusive to Sony products and allow greater control of all Sony equipment.



Projection TV Controls and Connectors

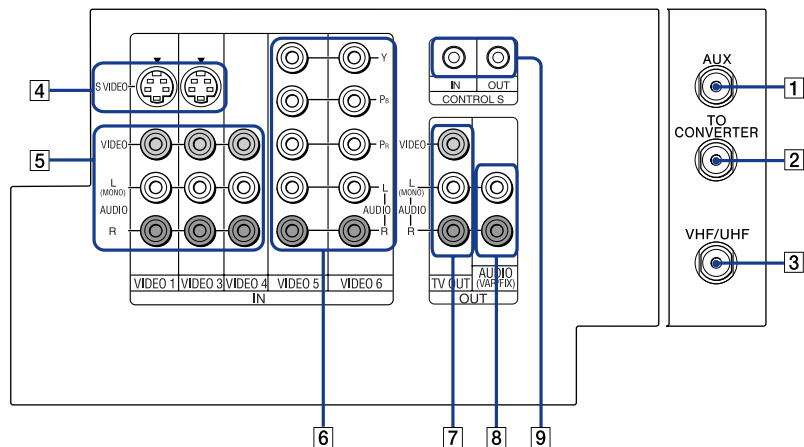
Front Panel Menu Controls

The front panel menu controls allow access to the on-screen menus without the use of a remote control. Pressing **MENU** brings up the on-screen menus. The arrow buttons move the on-screen cursor in the menus and by pressing the Select button (+) selects the menu item.

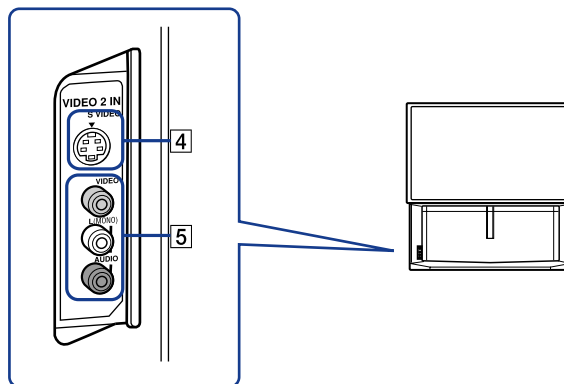


Projection TV Rear and Front Panel Connectors

Rear of projection TV



Front of projection TV



Connection	Description
1 AUX	Allows you to view local and cable channels if your cable provider does not feature local channels. You can switch between local and cable channels easily by pressing ANT on the remote control. Devices connected to the AUX input cannot be viewed in Twin View.
2 TO CONVERTER	This is a VHF/UHF OUT jack that lets you set up your projection TV to switch between scrambled channels (through a cable box) and normal cable channels (CATV). Use this jack instead of a splitter to get better picture quality when switching between scrambled and unscrambled cable channels.
3 VHF/UHF	Connects to your VHF/UHF antenna or cable.
4 S VIDEO (Rear and front)	Connects to the S VIDEO OUT jack of your VCR or other S VIDEO-equipped video component. Provides better picture quality than the VHF/UHF jacks or the Video IN jack.
5 VIDEO (L/R)/AUDIO (Rear and front)	Connects to the audio and video OUT jacks on your VCR or other video component. A fourth video input (VIDEO 2) is located on the front panel of the projection TV.
6 Y/PB/PR (L/R)/AUDIO	Connects to your DVD player's or Digital Set-top box's component video (Y, PB, PR) and audio (L/R) jacks.
7 TV OUT	Connects to an AV receiver for greater control of all audio and video equipment (see page 30). For detailed information about connection, refer to the operating manual supplied with the AV receiver.
8 AUDIO OUT (VAR/FIX) L (MONO)/R	Connects to the left and right audio inputs of your audio or video component.
9 CONTROL S IN/OUT	<p>To control other Sony equipment with the projection TV's remote control, connect the CONTROL S IN jack of the equipment to the CONTROL S OUT jack on the projection TV with the CONTROL S cable.</p> <p>To control the projection TV with a remote control for another Sony product, connect the CONTROL S OUT jack of the equipment to the CONTROL S IN jack on the projection TV with the CONTROL S cable.</p>

Basic Connections (Connecting Cable TV or Antenna)

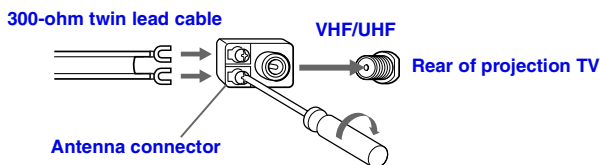
Connecting Directly to Cable or an Antenna

The connection you choose depends on the cable found in your home. Newer homes are equipped with standard coaxial cable (see **A**); older homes probably have 300-ohm twin lead cable (see **B**); other homes may contain both (see **C**).

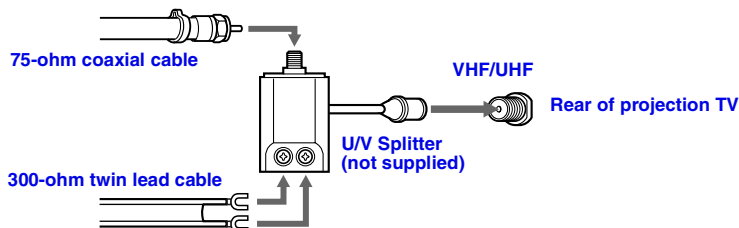
A VHF Only or VHF/UHF or Cable



B VHF Only or UHF Only or VHF/UHF

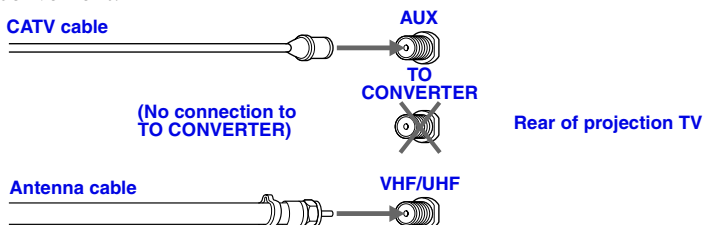


C VHF and UHF




Cable and Antenna

If your cable provider does not feature local channels, you may find this set up convenient.



Select CABLE or antenna (ANT) mode by pressing ANT on the remote control.

 To receive channels with an antenna, you need to turn your Cable to OFF (see page 53) and perform the Auto Program function (see page 54).

Cable Box Connections

Cable Box and Cable

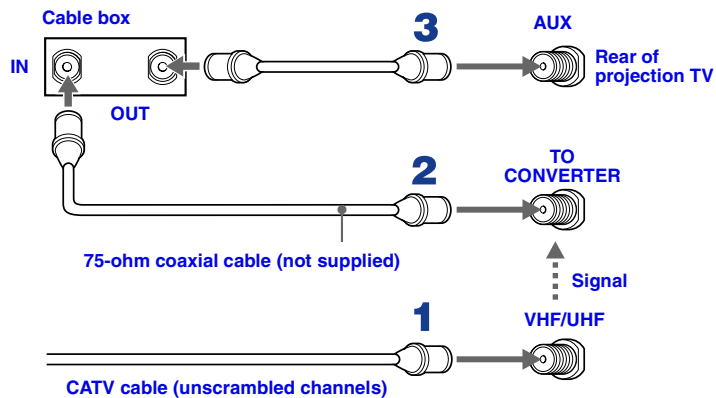
This is the preferred basic cable TV hookup to use if:


- ❑ Your cable TV company scrambles some channels, but not all of them (pay channels vs. regular cable channels) and you need to use a cable box, and
- ❑ You want to enjoy the Twin View feature.

With this setup you can:

- ❑ Use the projection TV remote control to change channels using your cable box when the signal is scrambled.
- ❑ Use the projection TV remote control to change channels using your projection TV when the signal is not scrambled. (Your projection TV's tuner provides a better signal than the cable box.)
- ❑ Use the Twin View feature. (When all channels are routed through your cable box, only one channel is sent to the projection TV, so you can not use the Twin View or Channel Index features for your cable box.)

- 1** Connect the Cable TV cable to the projection TV's VHF/UHF jack.
- 2** Using a coaxial cable, connect the projection TV's TO CONVERTER jack to the cable box's IN jack. The projection TV's internal converter allows you to switch between unscrambled signals coming straight into the projection TV and scrambled signals coming in through the cable box, eliminating the need for an external splitter.
- 3** Using a coaxial cable, connect the cable box's OUT jack to the projection TV's AUX jack.



 Pressing ANT on the remote control switches between the channels coming in through the cable box (scrambled) and those coming directly to the TV (unscrambled).

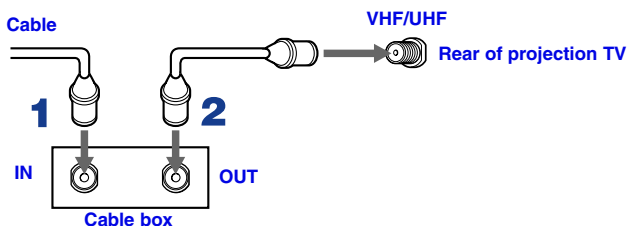
Cable Box Only

Use this hookup if:


- ☐ You subscribe to a cable TV system that uses scrambled or encoded signals requiring a cable box to view all channels, and
- ☐ You do not intend to hook up any other audio or video equipment to your projection TV.



When all channels are routed through your cable box, only one unscrambled channel is sent to the projection TV, so you cannot use the Twin View feature. If some channels are scrambled, but others are not, consider using the hookup on page 17 instead.

- 1** Connect the coaxial connector from your cable service to the cable box's IN jack.
- 2** Using a coaxial cable, connect the cable box's OUT jack to the TV's VHF/UHF jack.



Also, set Cable to ON in the Channel menu (see page 53).

 Setting the Channel Fix feature in the Channel menu (see “Using the Channel Menu” on page 53), ensures that you do not accidentally switch the channels using your projection TV.

-  Your Sony remote control can be programmed to operate your cable box (see “Programming the Remote Control” on page 68).
-  To change channels using the cable box, set your projection TV to channel 3 or 4 depending on the cable box channel output. If you will be controlling all channel selection through your cable box, consider using the Channel Fix feature to set your projection TV to channel 3 or 4 (see page 54).

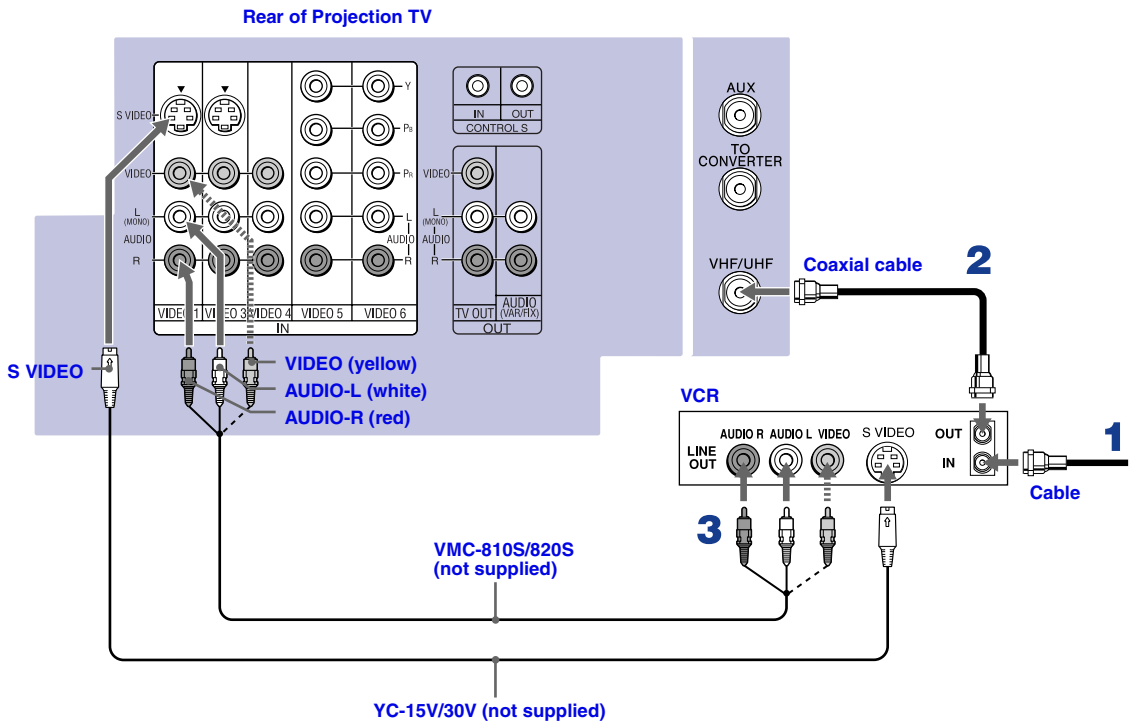
Connecting a VCR and Cable

Use this hookup if:

- ☐ You have cable TV that does not require a cable box.

Disconnect all power sources before making any connections.

- 1** Connect the cable TV cable to the VCR's IN jack.
- 2** Using a coaxial cable, connect the VCR's OUT jack to the projection TV's VHF/UHF jack.
- 3** Using AUDIO and S VIDEO cables, connect the VCR's Audio and S Video OUT jacks to the projection TV's AUDIO and S VIDEO IN jacks.



If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

Connecting a VCR and Cable Box

Use this hookup if:


- ☐ Your cable TV company scrambles some channels, but not all of them (pay channels vs. regular cable channels) and you need to use a cable box, and
- ☐ You want to enjoy the Twin View feature.

With this setup you can:

- ☐ Use the projection TV remote control to change channels on your cable box when the signal is scrambled. To program your Sony remote control to operate your cable box, See “Programming the Remote Control” on page 68.
- ☐ Use the projection TV remote control to change channels using your projection TV when the signal is not scrambled. Your projection TV’s tuner provides a better signal than the cable box.
- ☐ Use the Twin View feature. (When all channels are routed through your cable box, only one signal is sent to the projection TV, so you cannot use the Twin View feature.)

Disconnect all power sources before making any connections.

- 1** Connect the Cable TV cable to the projection TV’s VHF/UHF jack.
- 2** Using a coaxial cable, connect the TV’s TO CONVERTER jack to the cable box’s IN jack. The projection TV’s internal converter allows you to switch between unscrambled signals coming straight into the projection TV and scrambled signals coming in through the cable box, eliminating the need for an external splitter.
- 3** Using a coaxial cable, connect the cable box’s OUT jack to the VCR’s IN jack.
- 4** Using AUDIO and S VIDEO cables, connect the VCR’s AUDIO and S VIDEO OUT jacks to the projection TV’s AUDIO and S VIDEO IN jacks.
- 5** Using a coaxial cable, connect the VCR’s OUT jack to the projection TV’s AUX jack.

 To view scrambled channels, set your projection TV to AUX 3 or 4 (depending on your cable box output). Change channels using your cable box.



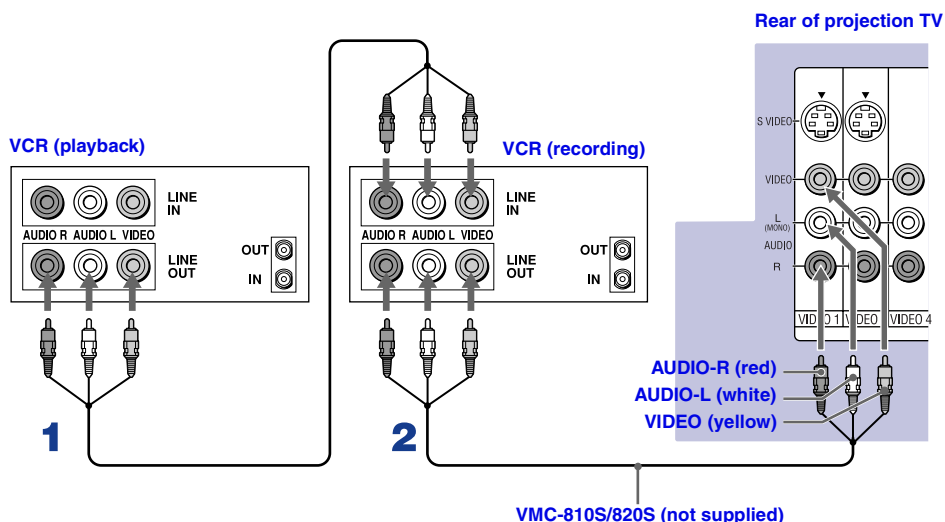
- 21





Connecting Two VCRs for Tape Editing

If you connect two VCRs, you can record from one VCR to the other while using your projection TV to monitor what is being recorded.

Disconnect all power sources before making any connections.

- 1** Using AUDIO and VIDEO cables, connect the playback VCR's Audio and Video OUT jacks to the recording VCR's Audio and Video IN jacks.
- 2** Using AUDIO and VIDEO cables, connect the recording VCR's AUDIO and Video OUT jacks to the projection TV's AUDIO and VIDEO IN jacks.




-  To perform tape editing, set the projection TV to the video input intended for playback by pressing TV/VIDEO on the remote control.
-  You may need to change the video input on your VCR. Consult your VCR's operating manual for instructions.
-  If your VCRs have an S VIDEO jack: For best picture quality, use an S VIDEO connection instead of the yellow video cable on your combined A/V cable.
Using an S VIDEO cable, connect the playback VCR's S VIDEO OUT jack to the recording VCR's S VIDEO IN jack. S VIDEO does not provide audio, so audio cables must be connected to provide sound.
-  You cannot record signals from equipment connected to the Y, P_B, P_R input.

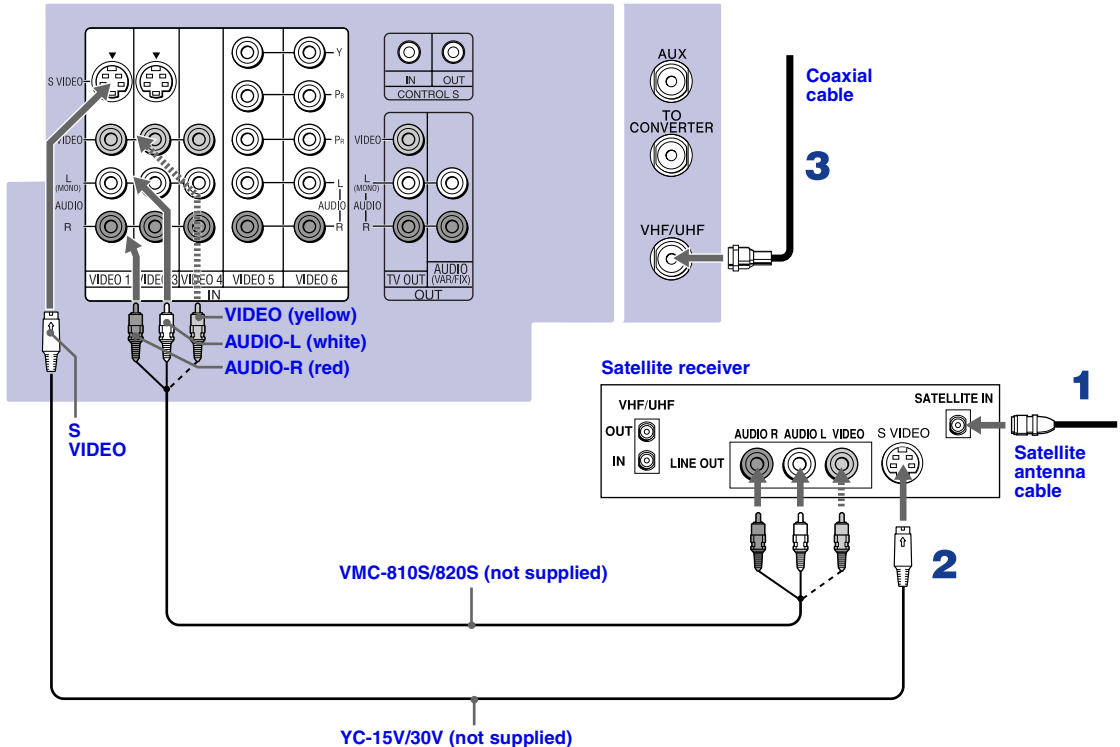
Connecting a Satellite Receiver

Disconnect all power sources before making any connections.

- 1** Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack.
- 2** Using AUDIO and S VIDEO cables, connect the satellite receiver's AUDIO and S VIDEO OUT jacks to the projection TV's AUDIO and S VIDEO IN jacks.
- 3** Connect a coaxial cable from your cable or antenna to the projection TV's VHF/UHF jack.

 If your satellite receiver is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

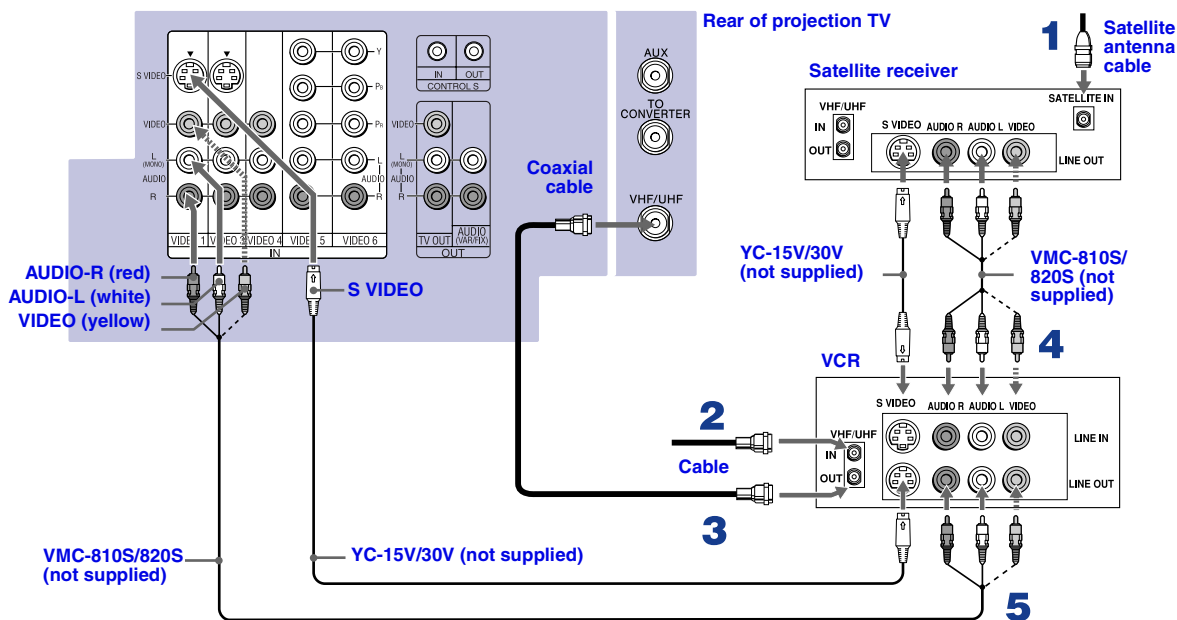
Rear of projection TV



Connecting a Satellite Receiver with a VCR

Disconnect all power sources before making any connections.

- 1** Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack.
- 2** Connect the CATV cable to the VCR's VHF/UHF IN jack.
- 3** Using a coaxial cable, connect the VCR's OUT jack to the projection TV's VHF/UHF jack.
- 4** Using AUDIO and S VIDEO cables, connect the satellite receiver's AUDIO and S VIDEO OUT jacks to the VCR's AUDIO and S VIDEO IN jacks.
- 5** Using AUDIO and S VIDEO cables, connect the VCR's AUDIO and S VIDEO OUT jacks to the TV's AUDIO and S VIDEO IN jacks.



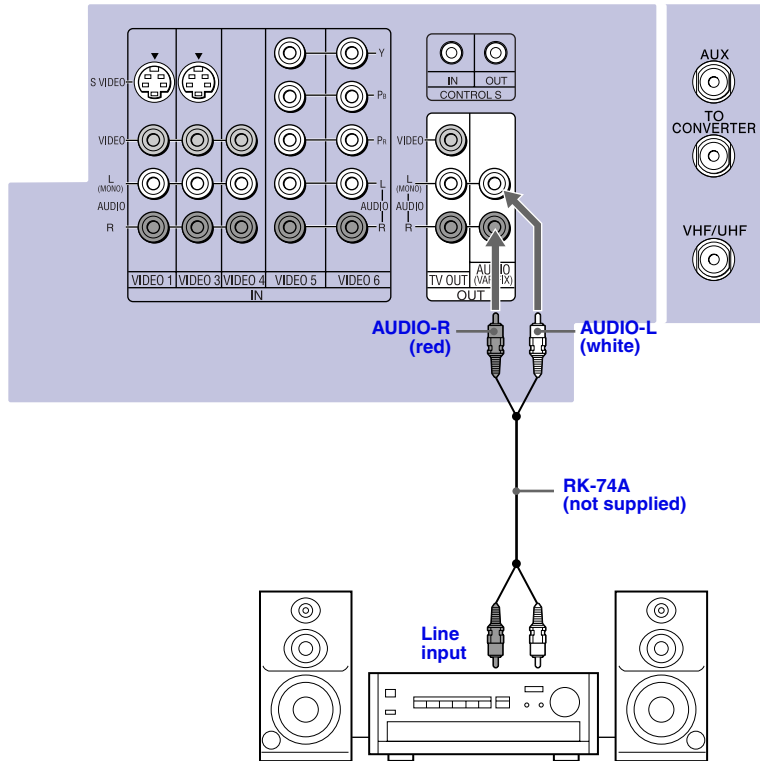
- Be sure your VCR's video input is set correctly. Consult your VCR's operating manual for instructions.
- Use TV/VIDEO to select
 - VIDEO 1 to watch satellite TV or the VCR (your VCR must be turned on).
 - VHF/UHF to watch cable TV.
- If your VCR or satellite receiver is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

Connecting an Audio Receiver

Disconnect all power sources before making any connections.

Using audio cables, connect the projection TV's AUDIO OUT(VAR/FIX) jacks to the audio receiver's audio LINE IN jacks.

Rear of projection TV




Connecting a DVD Player with Component Video Connectors

This is the preferred hookup to use if:

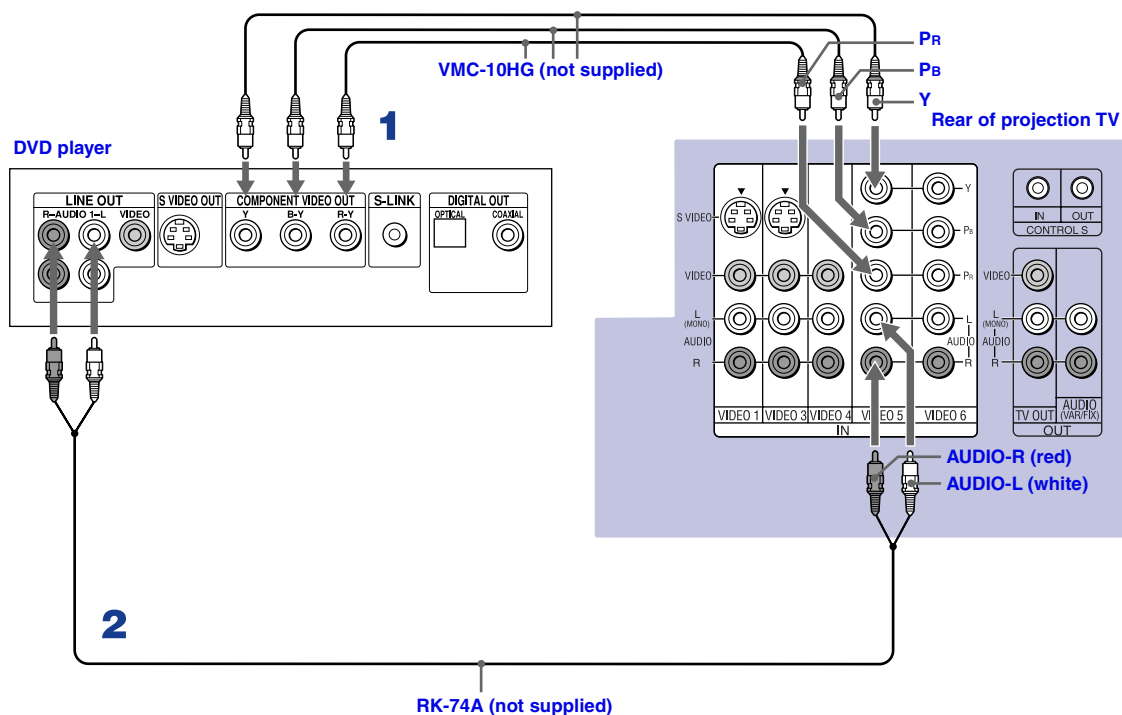
- Your DVD player has component (Y, B-Y, R-Y) jacks.

Disconnect all power sources before making any connections.

- 1 Using three separate component video cables, connect the DVD player's Y, B-Y and R-Y jacks to the Y, PB and PR jacks on the projection TV. Use the VIDEO IN 5 or 6 connections.

 The Y, B-Y and R-Y jacks on your DVD player are sometimes labeled Y, C_B and C_R, or Y, P_B and P_R. If so, connect the cables to like colors.


- 2 Using an audio cable, connect the DVD player's Audio OUT jacks to the projection TV's AUDIO IN jacks. Be sure to use the same row of inputs that you used for the video connection (VIDEO IN 5 or 6).



Connecting a DVD Player with A/V Connectors

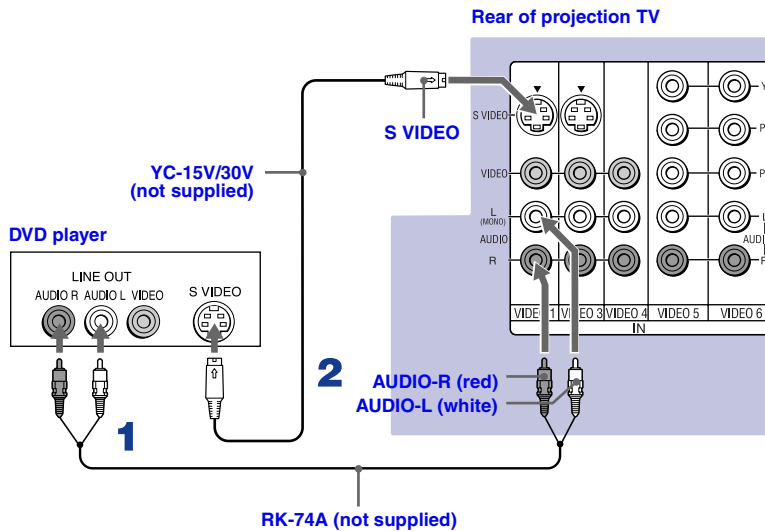
Use this hookup if:


- ☐ Your DVD player does not have component (Y, PB, PR) jacks.

 If your DVD player has video component output connectors: for best picture quality use the connection described on page 26.

Disconnect all power sources before making any connections.


- 1** Using audio cables, connect the DVD player's Audio OUT jacks to the projection TV's AUDIO IN jacks.
- 2** Using an S VIDEO cable, connect the DVD player's S VIDEO jack to the projection TV's S VIDEO jack.



 Use TV/VIDEO on the remote control to switch between the VCR, DVD player and cable TV inputs.


 If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.


Connecting a Digital TV Receiver

 Be sure to read the Set-top box manual.

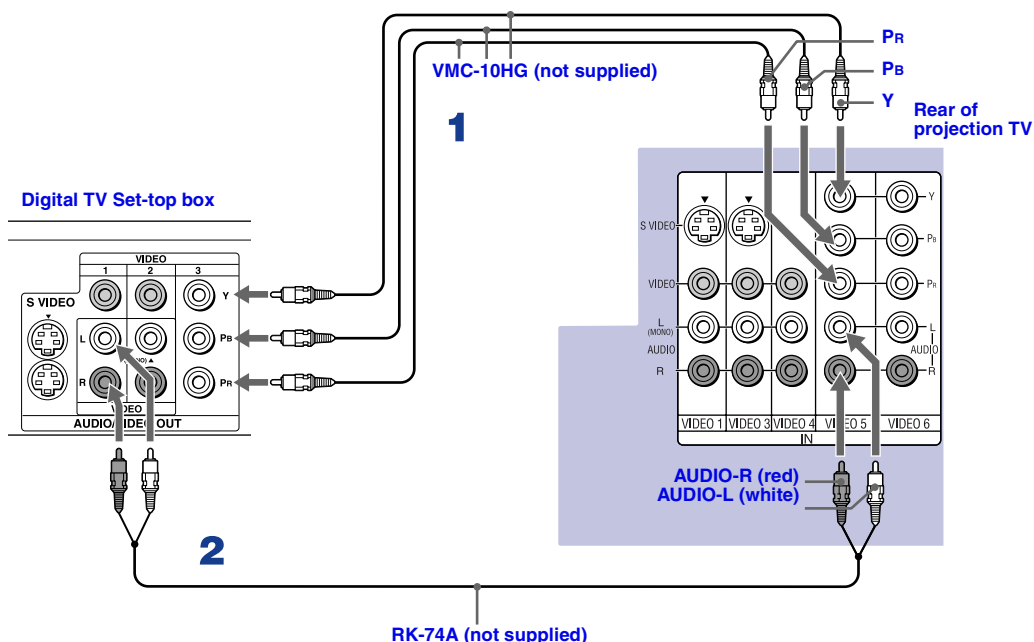
Disconnect all power sources before making any connections.


- 1 Using three separate component video cables, connect the Digital TV Set-top box's Y, P_B and P_R jacks to the projection TV.


 The Y, P_B and P_R jacks do not provide audio, so audio cables must be connected to provide sound.

 Component video connection is necessary to view 480p, 720p, and 1080i formats. You may also use the S VIDEO or Composite Video connections, however, component video (Y, P_B, P_R) will provide the best picture quality for all format types.

- 2 Using an audio cable, connect the Digital TV Set-top box's Audio OUT jacks to the projection TV's AUDIO IN jacks.





 You cannot record the signal from any equipment connected into the Y, P_B and P_R connectors.

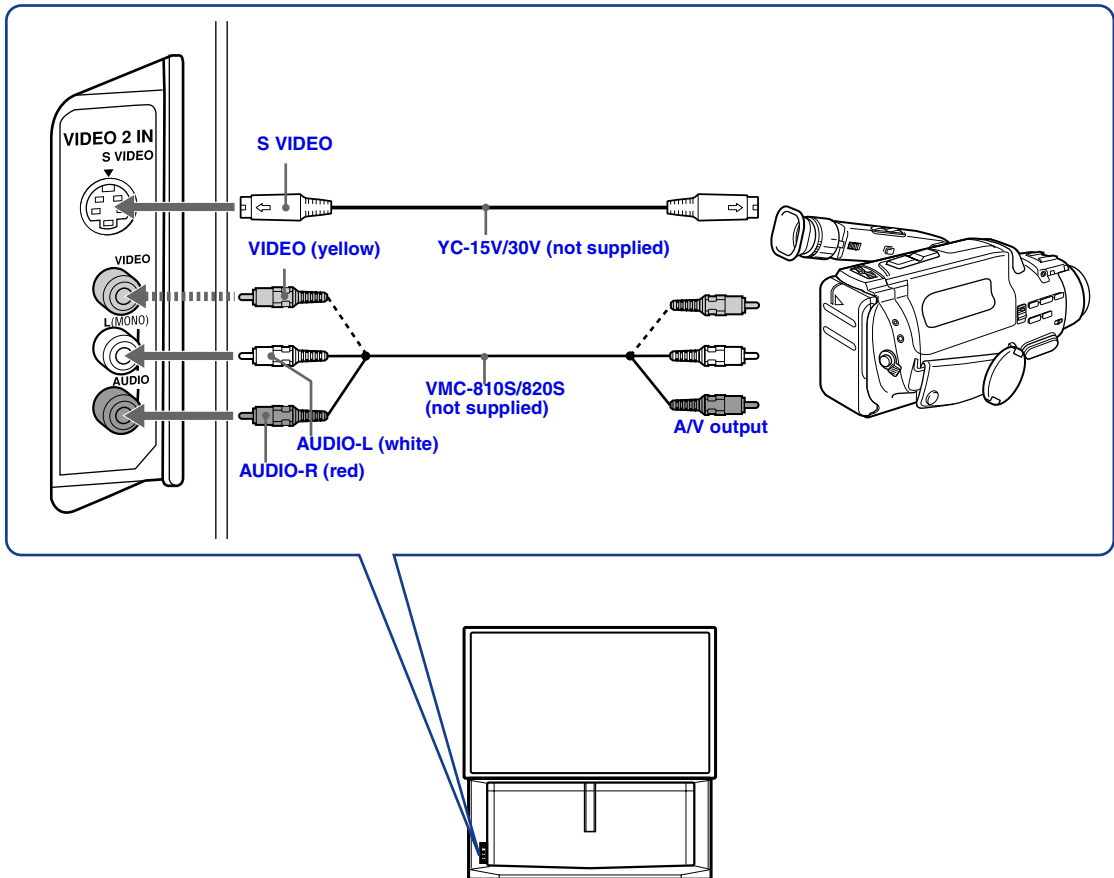
 This projection TV is not compatible with digital TV receivers configured with RGB or VGA output connectors.

Connecting a Camcorder

For easy connection of the camcorder, the projection TV has front Audio and Video inputs (shown below). However, if you prefer, you can also connect the camcorder to the projection TV's rear Audio and Video IN jacks.

Using AUDIO and S VIDEO cables, connect the camcorder's Audio and S VIDEO OUT jacks to the projection TV's AUDIO and S VIDEO IN jacks.

-  If you have a mono camcorder, connect its left audio output to the projection TV's AUDIO L (MONO) jack.
-  If your camcorder is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.



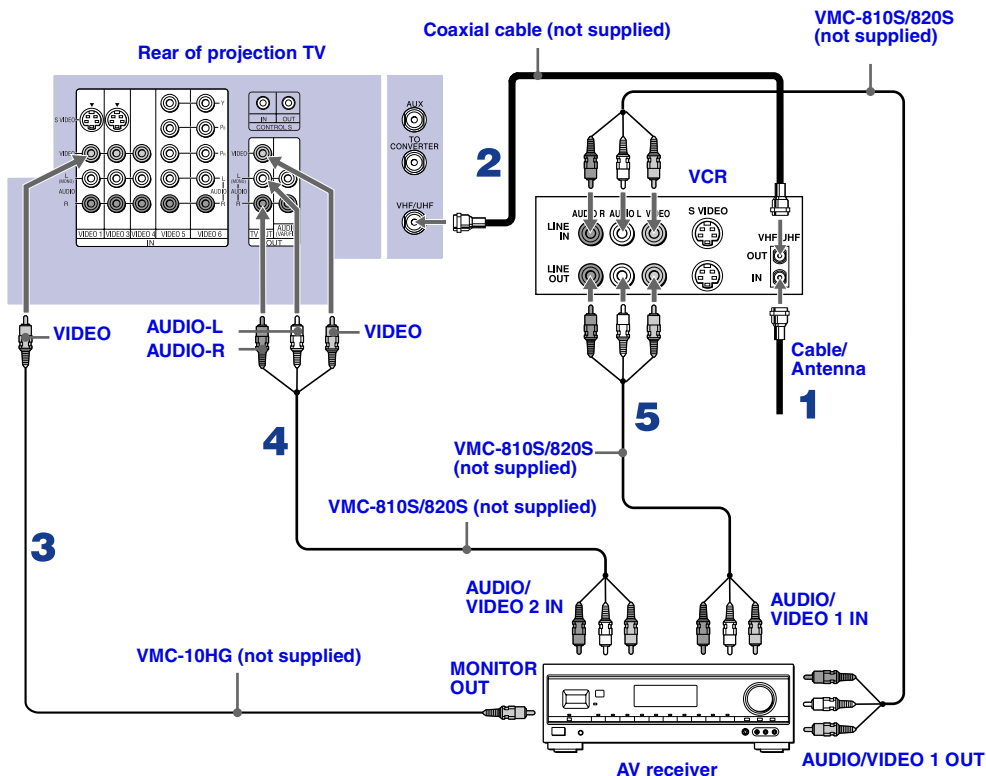
Connecting an AV Receiver

For greater control of all audio and video equipment, connect an AV receiver.

 Change “Video Label” for the VIDEO 1 input to “Receiver” (see page 59).

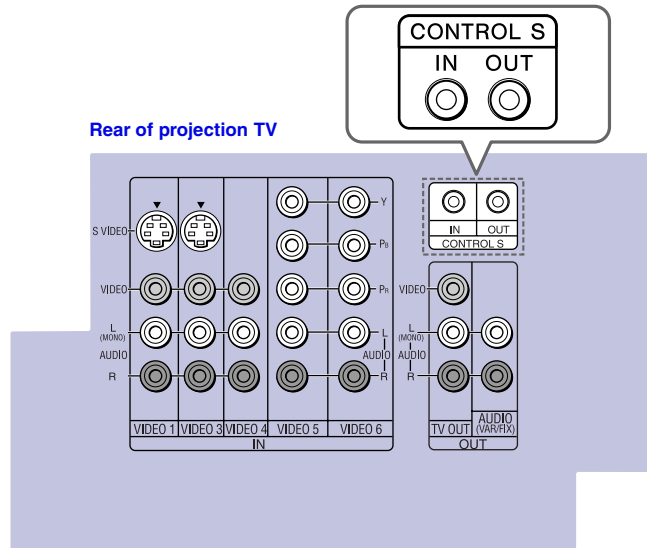
Disconnect all power sources before making any connections.

- 1** Connect the coaxial cable from the incoming cable connection or antenna to IN on the VCR.
- 2** Using a coaxial cable, connect OUT on the VCR to VHF/UHF on the projection TV.
- 3** Using a VIDEO cable, connect VIDEO of VIDEO 1 IN on the projection TV to MONITOR OUT on the AV receiver.
- 4** Using an AUDIO/VIDEO cable, connect TV OUT on the projection TV to AUDIO/VIDEO 2 IN on the AV receiver.
- 5** Using an AUDIO/VIDEO cable, connect the video equipment to the AV receiver.
- 6** Select the Setup menu and set “Video Label” to “Receiver” to fix your TV’s input to AV receiver (see “Video Label” on page 59).




Using the CONTROL S Feature

CONTROL S allows you to control your projection TV system and other Sony equipment with one remote control. In addition to allowing you to control multiple devices with one remote control, the CONTROL S feature allows you to always point your remote control at your projection TV, instead of having to point it at the other equipment, which might be hidden or out of direct line of sight.




Setting Up the Projection TV Automatically

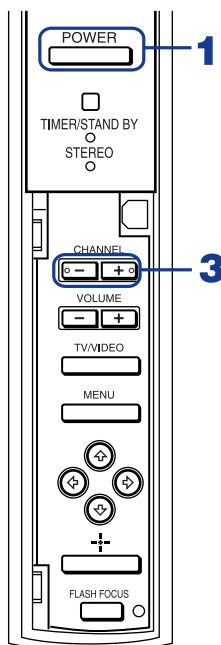
After you finish connecting your projection TV, you can run Auto Setup to set up your channels. The Auto Setup screen appears when you turn your projection TV on for the first time after installing it. If you do not want to set up the channels at this time, you can do it later by using the Auto Program feature in the Channel menu (see page 54).


 The Auto Setup feature does not apply for installations that use a cable box for all channel selection.

Using Auto Setup

- 1** Press POWER on the front panel of your projection TV or on the remote control to turn on the projection TV.
- 2** Press the TV (FUNCTION) button on your remote control. Red light will briefly appear.
- 3** Press CH+ on your projection TV to run Auto Setup, or press CH- to exit. If you use the channel buttons on your remote control, be sure to use the main set of buttons ().

Projection TV front panel



 You can run Auto Program by selecting it in the Channel menu, as described on page 54.

Adjusting the Convergence Automatically – FLASH FOCUS™ –

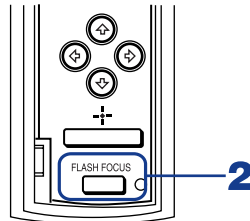
The projection tube image appears on the screen in three colors (red, green and blue). If they do not converge, the color is poor and the picture blurs.

Before you use your projection TV, be sure to adjust the convergence.

The FLASH FOCUS feature allows you to adjust the convergence automatically.

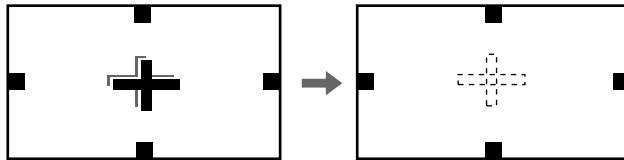
 It is recommended to perform FLASH FOCUS about 30 minutes after the projection TV is first turned on.




Projection TV
front panel



- 1** Receive a TV or cable TV program.
- 2** Press FLASH FOCUS.

The cross pattern shown below appears and FLASH FOCUS begins to work. The adjustment is completed when the cross pattern becomes white and you are returned to the program you were watching.



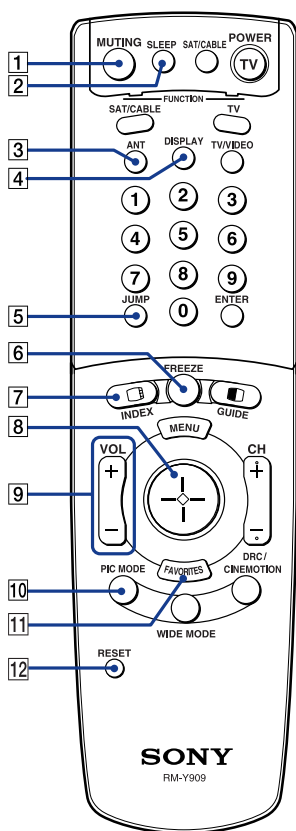
-  You cannot perform any other functions until FLASH FOCUS has completed its cycle.
-  If you perform any other operation while FLASH FOCUS is in progress, FLASH FOCUS operation is canceled.
-  Unshielded speakers or other metallic objects can cause picture distortion if placed close to the projection TV.

Using the Features

Using the Remote Control

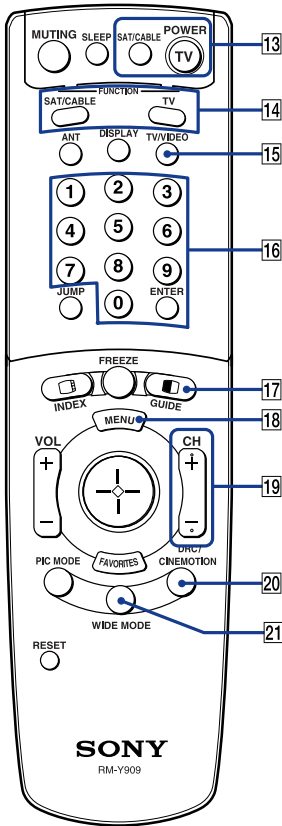
The following table describes the buttons on the remote control that are for more advanced functions.


Button Descriptions




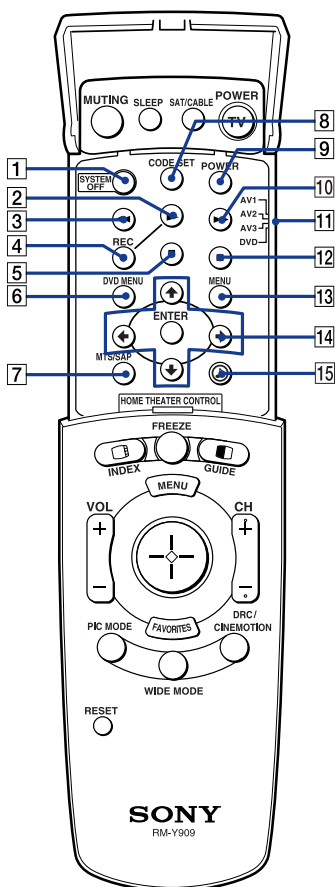
Outside Panel

Button	Description
1 MUTING	Press to mute the sound. Press again or press VOL + to restore the sound.
2 SLEEP	Press repeatedly until the projection TV displays the time in minutes (15, 30, 45, 60, or 90) that you want the projection TV to remain on before shutting off automatically. Cancel by pressing until SLEEP OFF appears. While the Sleep feature is set, press once to view the remaining time.
3 ANT	Changes between the VHF/UHF input and the AUX input.
4 DISPLAY	Press once to display the current time and channel label (if set) and channel number. Press again to turn Display off. See page 57 for details on setting the time.
5 JUMP	Press to jump back and forth between two channels. The projection TV alternates between the current channel and the last channel that was selected.
6 FREEZE	Freezes the window picture. Press again to restore the picture.
7 INDEX	Press to enter the Scrolling Channel Index mode. You can view and select from all receivable channels scrolling on the screen without leaving the current one.
8	The joystick allows for movement of the on-screen cursor. Pressing down on the center of the joystick selects the item.
9 VOL +/-	Adjusts the volume.
10 PIC MODE	Press repeatedly to step through the available video picture modes: Vivid, Standard, Movie and Pro. Also available in the Video menu. For details, see "Selecting Video Options" on page 49.
11 FAVORITES	Displays the Favorite Channels list. For details, see "Using Favorite Channels" on page 40.
12 RESET	Press when in a menu to reset the settings to the factory defaults.



Button	Description
13 POWER buttons (GREEN)	Turn on and off the projection TV and other audio/video equipment you have programmed into the remote control. For instructions, see “Programming the Remote Control” on page 68.
14 FUNCTION buttons	Select the equipment (TV, SAT/CABLE) that you want to operate. The indicator lights up momentarily when pushed to show which device the remote control is operating.
15 TV/VIDEO	Cycles through the video equipment connected to your projection TV’s video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, VIDEO 5 and VIDEO 6.
16 0 – 9 and ENTER	Press 0 - 9 to select a channel, the channel changes after 2 seconds. Press ENTER to select immediately.
17 	Turns on/off Twin View. For details, see “Using Twin View™” on page 41.
GUIDE	Displays the program guide of your satellite.
18 MENU	Press to display the projection TV on-screen menu. Press again to exit from the menu.
19 CH +/-	Scan through channels.
20 DRC/ CINEMOTION	Press repeatedly to step through the available high-resolution picture modes: Interlaced, Progressive and CineMotion. For details, see “Using the Video Menu” on page 49.
21 WIDE MODE	Press to step through the wide screen modes: Wide Zoom, Normal, Full and Zoom. For details, see “Using Wide Screen Mode” on page 47.

 To scan rapidly through the channels, press and hold down CH+ or CH-.

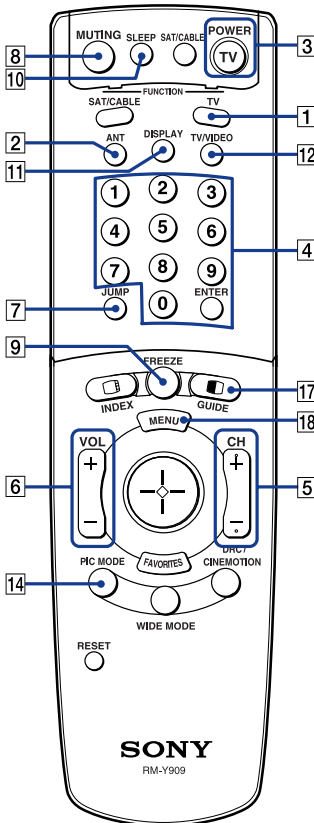


Inside Panel

Button	Description
1 SYSTEM OFF	Press to turn off the projection TV and all equipment connected with S-Link.
2 ►	Play
3 ◀◀	Rewind
4 REC	Record
5 ■	Stop
6 DVD MENU	Displays the DVD menu.
7 MTS/SAP	Press to scroll through the Multi-channel TV Sound (MTS) options: Stereo, Auto SAP, and Mono.
8 CODE SET	Used for programming the remote control to operate non-Sony video equipment. For details, see "Programming the Remote Control" on page 68.
9 POWER	Press to turn on the DVD/VCR player you have programmed into the remote control. For instructions, see "Programming the Remote Control" on page 68.
10 ►►	Fast-forward
11 AV1, AV2, AV3, DVD	Use to switch control for connected video equipment. You can program one video source for each switch position. For details, see "Programming the Remote Control" on page 68.
12	Pause (Press again to resume normal playback)
13 MENU	Displays the Video equipment menu.
14 ↑, ↓, ←, →, and ENTER	Use to operate the DVD menu.
15 🎵	Press to select an audio option: Steady Sound ON or OFF.

Watching the TV

Buttons for Projection TV Operations



1 TV (FUNCTION)

Activates the remote control for use with the projection TV.

2 ANT— (AUX input)

Press to change between the VHF/UHF input and the AUX input.

3 TV (POWER)

Turns the projection TV on and off. If a video input indication (e.g., VIDEO 1, VIDEO 2) appears on the screen, press TV/VIDEO or CH +/– until a channel number appears.

4 0-9 and ENTER

Use for direct channel selection. Press 0-9 to select a channel (for example, to select channel 10, press 1 and 0). The channel will change after 2 seconds, or you can press ENTER for immediate selection.

5 CH +/-

Press to scan through the channels (+ up or – down).

6 VOL +/-

Press to adjust the volume (+ up or – down).

7 JUMP

Press to alternate or jump back and forth between two channels. The projection TV will jump between the current channel and the last channel selected.

8 MUTING

Press to mute the sound. “MUTING” will appear on the screen and will dim three seconds later. To restore the sound, press again or press VOL +.

9 FREEZE — (yellow labeled button)

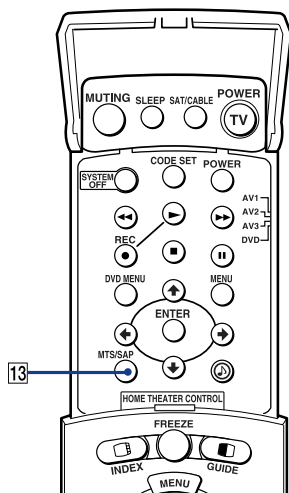
This is useful when you need to copy down information that appears on the TV’s screen (see “Using the Freeze Function” on page 44).

10 SLEEP

Press repeatedly until the projection TV displays the approximate time in minutes (15, 30, 45, 60, or 90) that you want the projection TV to remain on before shutting off automatically.

Cancel by pressing SLEEP until “SLEEP OFF” appears.

(Continued)



11 DISPLAY

Press to display the channel number, current time and channel label (if set).

To turn the display off, press DISPLAY again.

12 TV/VIDEO

Press repeatedly to scroll through available video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, VIDEO 5 and VIDEO 6.

If you select Skip as a Video Label in the Setup menu, your projection TV will skip the video input you selected (see “Video Label” on page 59).

13 MTS/SAP

Press to scroll through the Multi-channel TV Sound (MTS) options (see “MTS” on page 51).

14 PIC MODE

Press PIC MODE repeatedly to directly choose one of five different video modes that best suits the program you are watching.

Vivid: Select for enhanced picture contrast and sharpness.

Standard: Select to display a standard picture for normal viewing environments.


Movie: Select to display a finely detailed picture for low light environments.

Pro (Professional): Select to display a picture with minimum enhancements.

When you select each mode, you can also adjust the picture quality (such as Brightness, Color, etc.) to suit your taste. For details, see “Mode” on page 49.

Watching the Digital TV

When you have connected the DTV receiver, you can enjoy digital TV programs. This projection TV is capable of receiving the 1080i, 720p, 480p and 480i digital TV formats.

 This projection TV is not capable of displaying a native 720p format signal. When a 720p format signal is received, it is converted into a 480p format signal.


To view a digital TV program

- 1** Connect the DTV receiver to VIDEO 5 or 6 IN on the projection TV. (for details, see page 28)
- 2** Press TV/VIDEO to select VIDEO 5 or 6.
- 3** Select a digital channel on the DTV receiver. For details, see the Operating Manual of the DTV receiver.
- 4** Adjust the volume of the projection TV as necessary.

Using Favorite Channels

The Favorite Channel feature lets you select programs from a list of favorite channels that you preset.


To display a list of your favorite channels:

 Your Favorite Channel options can be set automatically or manually. The factory setting for Favorite Channel is Auto. When Favorite Channel is set to Auto, the last eight channels selected with 0-9 buttons will be set as Favorite Channel options. If you want to input your own selections as Favorite Channel settings, see “Favorite Channel” on page 53.

- 1** Press FAVORITES.

The Favorite Channel options appear.




- 2** Move the joystick up or down to highlight the channel you want to watch. The program of that channel appears in the preview window. Press  to select.

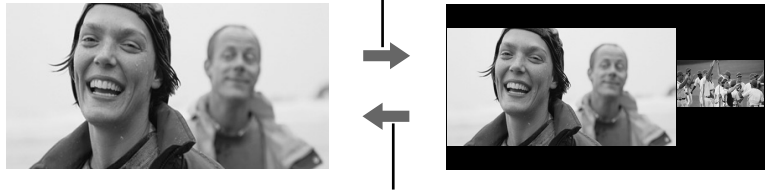
Using Twin View™

Twin View enables you to watch two programs at the same time. You can also change the size of both the left and right pictures.



Activating Twin Pictures

To display twin pictures

- 1** Make sure your projection TV is tuned to a working channel.
- 2** Press .



To cancel twin pictures

- ☐ Press  again (or press .

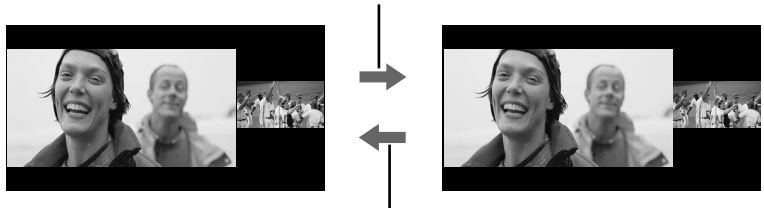
Activating the Picture

Although two pictures appear on the screen at the same time, only one picture is active. Change the picture size by using the joystick. For an active picture, you can:

- ☐ Change channels.
- ☐ Adjust the volume.
- ☐ Switch the input sources from VHF/UHF to cable by pressing ANT or TV/VIDEO to switch the video input.
- ☐ Change the picture size by pressing the joystick up or down.

To activate the right picture




- ☐ Move the joystick to the right.



To activate the left picture

- ☐ Move the joystick to the left.

(Continued)

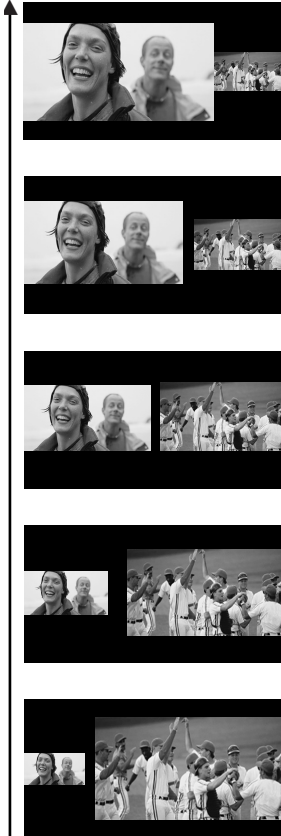
-  When you adjust the twin screen sizes, the projection TV memorizes the change. The next time you use the Twin View feature the memorized sizes appear.
-  Hookups that affect your ability to use Twin View:
 - If you are viewing all channels through the cable box, the Twin View feature will not work. The cable box only unscrambles one signal at a time, so the right picture will be the same as the left picture.
 - You can watch a scrambled cable channel and another video source. Be sure your DVD player, VCR or satellite receiver are connected to one of the VIDEO IN 1-6 and AUX inputs on the rear of the projection TV. Pictures from equipment connected to VIDEO 5, 6 and AUX will only appear in the left picture, not in the right.
-  The active picture is highlighted in cyan.

Changing the Picture Size

The zoom feature lets you change the size of the left and right pictures.


To enlarge the left picture (reduce the right)

- 1** Move the joystick left to activate the left picture (if not already activated).
- 2** Move the joystick up to enlarge the picture and move the joystick down to reduce the picture.



To enlarge the right picture (reduce the left)

- 1** Move the joystick right to activate the right picture (if not already activated).
- 2** Move the joystick up to enlarge the picture and move the joystick down to reduce the picture.

 When you adjust the twin screen sizes, the projection TV memorizes the change. The next time you use the Twin View function, the memorized sizes appear.

Using the Freeze Function


The FREEZE button allows you to temporarily capture a program's picture. You can use this feature to write down information such as phone numbers, recipes, etc.

To use the Freeze function

- 1** When the program information you want to capture is displayed, press FREEZE.
- 2** The projection TV switches to Twin View mode and displays the "frozen" picture on the right, while the current program continues on the left.



- 3** To cancel and return to normal viewing, press FREEZE.

 Freeze feature is not available if you are already in Twin View™ mode.

Using Scrolling Channel Index

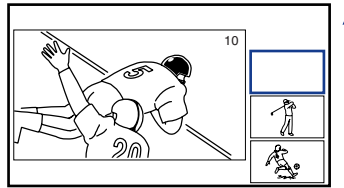
Scrolling Channel Index allows you to view and select from all receivable channels scrolling on the screen without leaving the current channel.


 Scrolling Channel Index will not function when parental Lock is activated.


To use the Scrolling Channel Index function

- 1 Press .

The current channel will be reduced in size and displayed on the left in normal motion picture format. The first channel is briefly displayed on the bottom-right side of the screen, then frozen. It scrolls up and the next channel appears on the bottom-right, and the process is repeated with the other channels.

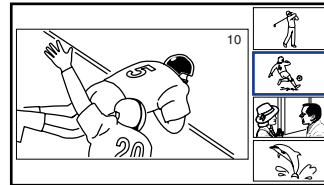



- 2 Move the joystick up and down so that the channel you wish to view is displayed in the cyan frame, and press .

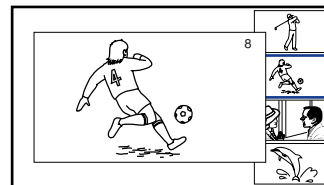
 To change the direction of scrolling, move the joystick up or down once.

To increase scrolling speed, hold the joystick up or down.

To return to scrolling, move the joystick up and down again.



- 3 To enlarge the selected channel into the left frame, press  again. The selected channel will be displayed in normal motion picture, and the sound also switches to this channel.




(Continued)

4 Press .

The selected channel will be enlarged for normal viewing.




To cancel Scrolling Channel Index

Press  again to resume normal viewing.

Using Wide Screen Mode

Wide Screen Mode lets you watch 4:3 normal broadcasts in several Wide Screen modes (16:9 aspect ratio).

 You can also access the Wide Mode settings in the Wide menu. For details, see page 55.

- Press WIDE MODE repeatedly to toggle through the following Wide Mode settings.



Wide Zoom



Normal



Full




Zoom

Wide Zoom enlarges the 4:3 picture, while the upper and lower parts of the picture are condensed to fit the 16:9 screen.

Normal returns the 4:3 picture to its original size.

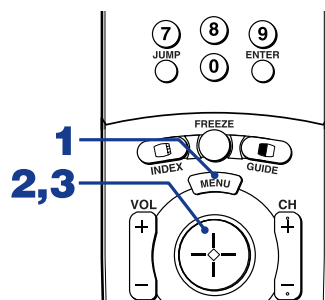
Full Mode stretches the 4:3 picture horizontally only, to fill the 16:9 screen.

Zoom Mode enlarges the 4:3 picture horizontally and vertically to an equal aspect ratio that fills the 16:9 screen. Useful for watching Letterbox movies.

 When you change channels or inputs, the Wide Mode settings revert to Wide Zoom (or the 4:3 Default setting in the Wide menu). To retain the current Wide Mode setting as channels and inputs are changed, set 4:3 Default to Off. For details, see page 55.

Using the Menus

Overview



Opening and choosing a menu:

- 1** Press MENU to display the menu screen.
- 2** Move the joystick to the desired menu icon and press to select it.
- 3** Use the joystick to scroll through the features.
- 4** See the specific menu page for instructions on moving through the menu.

The menu gives you access to the following features:

Menu Icon	Description	Page
	Allows you to make adjustments to your picture settings. It also allows you to customize the Picture Mode based on the type of program you are viewing.	49
	Offers enhanced audio options such as listening to second audio programming (SAP), or customizing the Effect of the sound on your projection TV.	51
	Allows you to set up a Favorite Channel list, run the Auto Program function, and more.	53
	Allows you to set the wide screen mode, adjust the vertical center in wide mode, and set the 4:3 Default mode.	55
	Lets you set the clock on your projection TV and allows you to program your projection TV for scheduled viewing using the Timers.	57
	Provides several options for setting up your channels, labeling your Video inputs, and selecting the language of the on-screen menus.	58

To end a menu session:

Press MENU again.





To end one menu session and move to another:

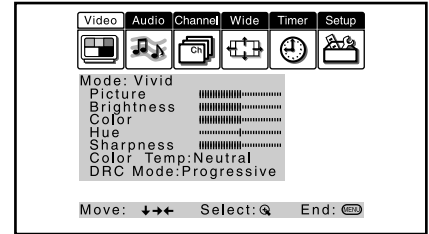
Press the joystick to return to the menu icons. Move the joystick or to choose the next menu icon and press to select it.



Using the Video Menu

To select the Video Menu


- 1** Press MENU.
- 2** Move the joystick to the Video icon  and press .
- 3** Use the joystick to scroll through the features.
- 4** Press  to select a feature. That feature's adjustment appears.
- 5** Use the joystick to make the desired adjustments.
- 6** Press  to select/set.
- 7** Press MENU to exit the menu screen.




To restore the factory default settings for Picture, Brightness, Color, Hue, Sharpness and Color Temp

- ☐ Press RESET on the remote control when in the Video menu.

Selecting Video Options

 To quickly and easily change from one Video Mode to another, use the PIC MODE on the remote control.

The Video menu includes the following options.

Option	Description
Mode	Vivid Select for enhanced picture contrast and sharpness.
<i>Customized picture viewing</i>	Standard Recommended for Normal viewing conditions.
	Movie Select for soft, film like, picture.
	Pro Select for professional monitor like appearance.
	 You can alter the Video menu settings (Picture, Brightness, Color, etc.) for each Mode.
Picture	Adjust to increase picture contrast and deepen the color or decrease picture contrast and soften the color.
Brightness	Adjust to brighten or darken the picture.
Color	Adjust to increase or decrease color intensity.
Hue	Adjust to increase or decrease the green tones.
Sharpness	Adjust to sharpen or soften the picture.
Color Temp	Choose from three color temperatures:
<i>White intensity adjustment</i>	Cool Select to give the white colors a blue tint.
	Neutral Select to give the white colors a neutral tint.
	Warm Select to give the white colors a red tint (NTSC-Standard).





(Continued)

<i>Option</i>	<i>Description</i>	
DRC Mode <i>Digital Reality Creation</i>	Creates a high-resolution picture with 4x density, for high quality sources (i.e., DVD player, Satellite receiver).	
	Interlaced	Recommended for moving pictures.
	Progressive	Recommended for still images and text.
	CineMotion	Recommended for 24 frame-per-second films.



Using the Audio Menu

To select the Audio Menu

- 1** Press MENU.
- 2** Move the joystick to the Audio icon  and press .
- 3** Use the joystick to scroll through the options.
- 4** Press  to select an option. That option's settings appear.
- 5** Use the joystick to scroll through the settings.
- 6** Press  to select the desired setting.
- 7** Press MENU to exit the menu screen.




To restore the factory default settings for Treble, Bass and Balance

- ☐ Press RESET on the remote control when in the Audio menu.

Selecting Audio Options

The Audio menu includes the following options:

Option	Description	
Treble	Adjust to increase or decrease higher-pitched sounds.	
Bass	Adjust to increase or decrease lower-pitched sounds.	
Balance	Adjust to emphasize left or right speaker balance.	
Steady Sound	ON	Select to stabilize the volume.
	OFF	Select to turn off Steady Sound.
Effect	Dolby Virtual	Select for surround sound (for stereo programs only).
	Simulated	Adds a surround-like effect to mono programs.
	OFF	Normal stereo or mono reception.
MTS <i>Enjoy stereo, bilingual and mono programs</i>	Stereo	Select for stereo reception when viewing a program broadcast in stereo.
	Auto-SAP	Select to automatically switch the projection TV to second audio programs when a signal is received. (If no SAP signal is present, the projection TV remains in Stereo mode.)
	Mono	Select for mono reception. (Use to reduce noise during weak stereo broadcasts.)

 A virtual surround system attempts to create the same surround effect produced by a multichannel system using only the left and right speakers. Most effective for programs encoded in Dolby Surround.





(Continued)

Option	Description	
Speaker	ON	Select to turn on the projection TV speakers.
	OFF	Select to turn off the projection TV speakers and listen to the projection TV's sound only through your external audio system speakers.
Audio Out <i>Easy control of volume adjustments</i>	Variable	The projection TV's speakers are turned off, but the volume output from your audio system can still be controlled by the projection TV's remote control.
	Fixed	The projection TV's speakers are turned off and the volume, bass and treble output of the projection TV is fixed. Use your audio receiver's volume control to adjust the volume through your audio system.



Using the Channel Menu




To select the Channel Menu

- 1** Press MENU.
- 2** Move the joystick to the Channel icon  and press .
- 3** Use the joystick to scroll through the features.
- 4** Press  to select a feature. That feature's options appear.
- 5** Use the joystick to scroll through the options.
- 6** Press  to select the desired option.
- 7** Press MENU to exit the menu screen.





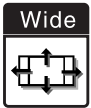
Selecting Channel Options

The Channel menu includes the following options:

Option		Description
Favorite Channel	Auto	Select if you want Favorite Channel options to be set automatically to the last eight channels selected with the 0-9 buttons.
	Manual	Select if you want to input your own selections as Favorite Channel options. <ol style="list-style-type: none"> 1 Press  to select a favorite channel number. 2 Use the joystick to scroll through the channels until you find the channel you want to add to your favorites. 3 Press  to select it.
Cable	ON	Select if you are receiving cable channels with a CATV cable.
	OFF	Select if you are using an antenna.
 You should run Auto Program after changing the Cable setting.		





(Continued)

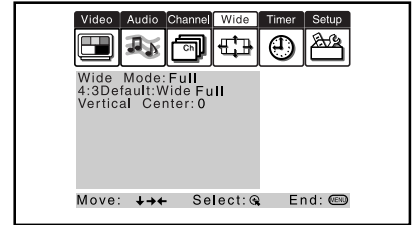
Option	Description	
Channel Fix <i>Useful when you have a cable box or satellite receiver connected</i>	2-6	“Fix” your projection TV’s channel setting to 3 or 4 and use the cable box, VCR or satellite receiver to change channels. Select one of these settings if you have connected the device to the VHF/UHF jack.
	AUX 2-6	Same as 2-6, except you select one of these settings if you have connected the device to the AUX jack. (see page 15)
	VIDEO 1	Use when connecting an AV receiver to control external video sources. TV output should be connected through the AV receiver.
Auto Program	Automatically programs the projection TV for all receivable channels.	
Channel Skip/Add	<p>Removes and adds viewable channels.</p> <p>1 Use the joystick to scroll through the channels until you find the channel you want to skip/add.</p> <p>2 Press  to select it.</p> <p>3 Press the joystick up or down to toggle between “Add” and “Skip.”</p> <p>4 Press  to select.</p>	
Channel Label	Label up to 20 channels with their station call letters.	




Using the Wide Menu


To select the Wide menu


- 1** Press MENU.
- 2** Use the joystick to move to the Wide icon  and press .
- 3** Move the joystick to scroll through the features.
- 4** Press  to select a feature. That feature's options appear.
- 5** Use the joystick to scroll through the options.
- 6** Press  to select the desired option.
- 7** Press MENU to exit the menu screen.



Selecting Wide Options

 To change from one Wide Mode to another, use the WIDE MODE button on the remote control.


 Wide Mode is unavailable while in Twin View.


 The 4:3 Default functions only when the projection TV receives 480i signals.

The Wide menu includes the following options:

Option	Description
Wide Mode <i>Select a Wide Mode to use for 4:3 sources.</i>	Wide Zoom Select to enlarge the 4:3 picture, while the upper and lower parts of the picture are condensed to fit the wide screen.
	Normal Select to return the 4:3 picture to normal mode.
	Full Select to enlarge the 4:3 picture horizontally only, to fill the wide screen.
	Zoom Select to enlarge the 4:3 picture horizontally and vertically to an equal aspect ratio that fills the wide screen.
4:3 Default <i>Select the default Screen Mode to use for 4:3 sources.</i>	Wide Zoom Select to enlarge the 4:3 picture, while the upper and lower parts of the picture are condensed to fit the wide screen.
	Normal Select to return the 4:3 picture to normal mode.
	Full Select to enlarge the 4:3 picture horizontally only, to fill the wide screen.
	Zoom Select to enlarge the 4:3 picture horizontally and vertically to an equal aspect ratio that fills the wide screen.
	Off Select to continue using the current Wide Mode setting when the channel or input is changed.

(Continued)



 If 4:3 Default is set to anything but Off, the Wide Mode setting changes only for the current channel. When you change channels (or inputs), Wide Mode is automatically replaced with the 4:3 Default setting. To retain the current Wide Mode setting as channels and inputs are changed, set 4:3 Default to Off.

Option	Description
Vertical Center	Allows you to move the position of the picture up and down in the window. (Available only in Wide Zoom and Zoom modes.) Move the joystick up or down to choose a position and press  .





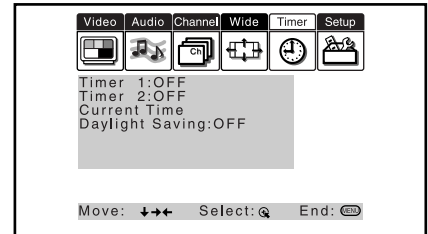
Using the Timer Menu

To select the Timer menu

- 1** Press MENU.
- 2** Move the joystick to the Timer icon  and press .



To set the Current Time

- 1** Use the joystick to select “Current Time”, then press .
- 2** If it is currently Daylight Saving Time, be sure to set the mode to “ON” first.
- 3** Use the joystick to enter the correct time, then press .
- 4** Press MENU to exit the menu screen.



To set the Timer

Before setting the timer, be sure to set your projection TV's clock to the current time and Daylight Saving Mode.

- 1** Move the joystick to “Timer 1” or “Timer 2”, then press .
- 2** Use the joystick to enter your day, time and channel preferences, then press  to select each one.
- 3** Press MENU to exit the menu screen.

To reset the Clock or Timers

- ☐ Press RESET on the remote control after selecting that option in the Timer menu.

Selecting Timer Options





The Timer menu includes the following options:

Option	Description	
Timer 1 Timer 2	Program	Select to set the Timer by day, time, duration, and channel.
	OFF	Select to turn off the Timer. (Your previous settings will be saved.)
Current Time	Set the current time.	
Daylight Saving	ON	Select in the Spring to adjust the time during Daylight Saving Time.
	OFF	Select in the Fall to adjust the time at the end of Daylight Saving Time.



Using the Setup Menu

To select the Setup Menu




- 1 Press MENU.
- 2 Move the joystick to the Setup icon  and press .
- 3 Use the joystick to scroll through the features.
- 4 Press  to select a feature. That feature's options appear.
- 5 Use the joystick to scroll through the options.
- 6 Press  to select the desired option.
- 7 Press MENU to exit the menu screen.




Selecting Setup Options

The Setup menu includes the following options:

Option	Description
Parental Control	Allows you to set up the TV to block programs according to their content and rating levels. For details about setting, see "Using the Parent Menu" on page 60.
Caption Vision	Allows you to select from three closed caption modes (for programs that are broadcast with closed captioning).
OFF	Turns off Caption Vision.
CC1, CC2, CC3, CC4	Displays a printed version of the dialog or sound effects of a program. (Should be set to CC1 for most programs.)
TEXT1, TEXT2, TEXT3, TEXT4	Displays network/station information presented using either half or the whole screen (if available). For closed captioning, set to CC1.
XDS (Extended Data Service)	Displays a network name, program name, program length, and time of the show if the broadcaster offers this service.


Option	Description				
Video Label	<p>Allows you to label the audio/video components you connected to the projection TV so you can identify them when using TV/VIDEO. When in the Setup menu's Video Label feature, use the joystick to highlight an input to label, then press  to select it. Use the joystick to scroll through the labels. Press  to select the component you connected to each of the input jacks on the back of your projection TV. Select "Skip" if you do not have a component connected to a particular set of input jacks.</p> <table><tr><td>VIDEO 1/2/3/4</td><td>VHS, 8mm, Beta, LD, Game, SAT, DVD, Web, Receiver, DTV, Skip</td></tr><tr><td>VIDEO 5/6</td><td>DVD, DTV, HD, Skip</td></tr></table> <p>If you select "Skip", your projection TV skips this connection when you press TV/VIDEO.</p> <p> When you select "Receiver" on Video Label, your projection TV's input is fixed.</p>	VIDEO 1/2/3/4	VHS, 8mm, Beta, LD, Game, SAT, DVD, Web, Receiver, DTV, Skip	VIDEO 5/6	DVD, DTV, HD, Skip
VIDEO 1/2/3/4	VHS, 8mm, Beta, LD, Game, SAT, DVD, Web, Receiver, DTV, Skip				
VIDEO 5/6	DVD, DTV, HD, Skip				
Language	Select to display all on-screen menus in your language of choice: English, Español, Français.				

 To use this feature with widescreen DVDs, set your DVD player to 16:9 aspect ratio.



Using the Parent Menu

The Parent menu allows you to set up the TV to block programs according to their content and rating levels.

These ratings are assigned by a federal rating board. Not all programs are rated. Using the Parental Lock blocks programs with a specific rating, but it does not block an entire channel.

 Scrolling Channel Index will not function when Parental Lock is activated.

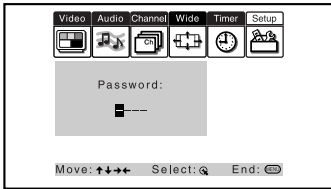
To select the rating

- 1 Press MENU.
- 2 Move the joystick to the Setup icon  and press .





- 3 Make sure that “Parental Control” is selected, and press .


First, set a password, then select the country you reside in (U.S.A. or Canada) and your desired rating.




- 4 Use the 0-9 buttons on the remote control to enter your four-digit password.
- 5 Confirm your password by entering it again. Your password is stored and the Parent menu options appear.

 You need the password entered here for any future access into the Parent menu. If you lose your password, see “Lost password” on page 74.

 If you want to change the password, see page 62.

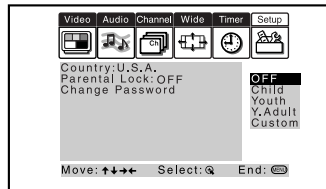
- 6** Make sure that “Country” is selected, and press .




- 7** Move the joystick up or down to select U.S.A. or Canada according to the country you reside in, and press .

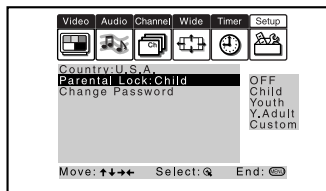


- 8** Move the joystick down to select “Parental Lock”, and press .




- 9** Move the joystick up or down to select a desired rating, and press .


If you select Child, Youth, Young Adult or Custom, the Parental Control is activated automatically.



If you want to select the ratings from Custom, see “Using Custom Rating Options” on page 63.

- 10** Press MENU to exit the menu screen.

 If you are not familiar with the Parental Guideline rating system, you should select Child, Youth, or Young Adult to help simplify the rating selection. To set more restrictive ratings, select Custom.

 For descriptions of Child, Youth, and Young Adult ratings, see pages 66 and 67.


The Parent menu includes the following options.

Option	Description	
Parental Lock	OFF	Parental lock is off. No programs are blocked from viewing.
<i>Turn ratings on/off and select a rating system</i>	Child	Maximum ratings permitted are: <input type="checkbox"/> US: TV-Y, TV-G, G <input type="checkbox"/> Canada: TV-Y, C, G
	Youth	Maximum ratings permitted are: <input type="checkbox"/> US: TV-PG, PG <input type="checkbox"/> Canada: TV-PG, PG, 8 ans+
	Young Adult	Maximum ratings permitted are: <input type="checkbox"/> US: TV-14, PG-13 <input type="checkbox"/> Canada: TV-14, 14+, 13 ans+
	Custom	Select to set ratings manually. <input type="checkbox"/> US: See page 66 for details. <input type="checkbox"/> Canada: See page 67 for details.
Change Password	For changing your password. (see below)	

To deactivate the Parental Control feature

- ☐ Set Parental Lock to OFF when in the Parent menu.

To change the password

- 1** Select Change Password option when in the Parent menu using the joystick, and press .
- 2** Enter a new four-digit password using the 0-9 buttons.
- 3** Confirm the new password by entering it again.
- 4** Press MENU to exit the menu screen.

Viewing Blocked Programs


You can view a blocked program by entering the password.

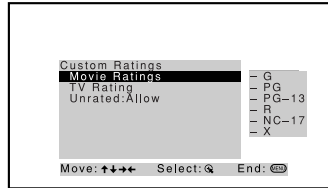
- 1** Press ENTER when tuned to a blocked program.
- 2** Enter your password using the 0-9 buttons.

Parental Control will be canceled temporarily until you turn your projection TV off.

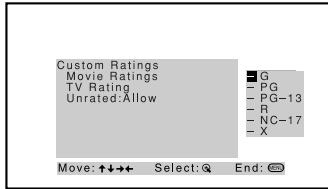
Using Custom Rating Options


If you want to select the ratings to be blocked from Custom, follow the procedure below.


- 1** Perform the steps 1 to 8 in “To select the rating” on page 60 to display the Parental Lock options.
- 2** Move the joystick up or down to select “Custom,” and press .

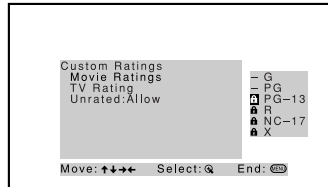




- 3** Make sure that “Movie Ratings” is selected, and press .




- 4** Move the joystick up or down to select the rating to be blocked, and press .

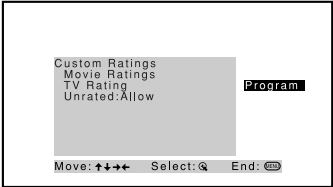
The  indicator automatically appears beside the selected rating and all “higher” ratings, indicating that the programs that match the ratings will be blocked.



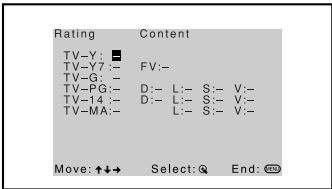
To unblock a rating, select it by moving the joystick up or down, then press . The indicator  changes into “-” and all “lower” ratings are unblocked.


(Continued)


- 5** Move the joystick left, then down, to select “TV Rating” or “Program,” and press .

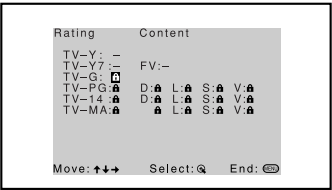




- 6** The “TV Rating” setting menu appears.




- 7** Move the joystick up or down to select the rating to be blocked, and press .

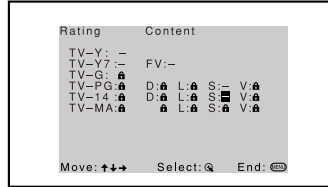
The  indicator automatically appears beside the selected rating and all “higher” ratings, indicating that the programs that match the ratings will be blocked.





To unblock a rating, select it by moving the joystick up or down, then press . The indicator  changes into “-” and all “lower” ratings are unblocked.

Some TV ratings have additional content ratings called “extenders.” The extenders are defined as follows: D (sexually suggestive Dialog), FV (Fantasy Violence), L (Coarse Language), S (Sexual situations) and V (Violence). By setting the extenders, you can define additional viewing limits. All of the extenders included in the selected ratings will be blocked. If you wish to allow any of them to be viewed, go to step 8.

- 8** Move the joystick left or right to select the extender to be viewed, and press .




“-” appears beside the selected extender, indicating that the programs that match the extender can be viewed.


If you press  again,  is displayed to show that the programs that match the extender will be blocked again.

- 9** Repeat step 8 for other extenders.

All programs that match the ratings you select and higher, except for the extenders that were canceled, will be blocked.

- 10** Press MENU to exit the menu screen.


 To ensure maximum blocking capability, the age-based ratings should be blocked.

 If you choose to block unrated TV programs, please be aware that the following programs may be blocked: emergency broadcasts, political programs, sports, news, public service announcements, religious programs and weather.

US custom rating options

If you selected U.S.A. as the country of residence on page 60, the Custom Rating Menu includes the following options. (If you selected Canada, see page 67.)

Option	Description	
Movie Rating	G	All children and General Audience.
	PG	Parental Guidance suggested.
	PG-13	Parental Guidance for children under 13.
	R	Restricted viewing, parental guidance is suggested for children under 17.
	NC-17 and X	No one 17 and under allowed.
TV Rating	Age-Based Options	
<i>Block programs by their rating, content or both</i>	TV-Y	All children.
	TV-Y7	Directed to older children.
	TV-G	General Audience.
	TV-PG	Parental Guidance suggested.
	TV-14	Parents Strongly cautioned.
	TV-MA	Mature Audience only.
	Content-Based Options	
	FV	Fantasy Violence.
	D	Suggestive Dialogue.
	L	Strong Language.
Unrated	Block	Blocks all programs and movies that are broadcast without a rating.
<i>Block programs or movies that are broadcast without a rating</i>	Allow	Allows programs and movies that are broadcast without a rating.

 The content ratings will increase depending on the level of the age-based rating. For example, a program with a TV-PG V (Violence) rating may contain moderate violence, while a TV-14 V (Violence) rating may contain more intense violence.

Canadian custom rating options

If you selected Canada as the country of residence on page 60, the Custom Rating Menu includes the following options. (If you selected U.S.A., see page 66.)

Option	Description	
English Rating	C	All children.
	C8+	Children 8 years and older.
	G	General programming.
	PG	Parental Guidance.
	14+	Viewers 14 and older.
	18+	Adult programming.
French Rating	G	General programming.
	8 ans+	Not recommended for young children.
	13 ans+	Not recommended for ages under 13.
	16 ans+	Not recommended for ages under 16.
USA Rating	18 ans+	Programming restricted to adults.
	See “TV Rating” on page 66 for details.	


Other Information

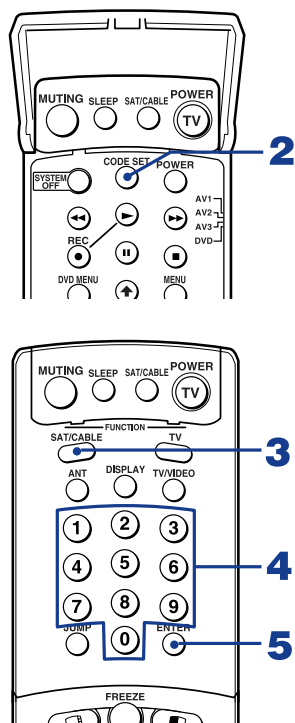
Programming the Remote Control

The remote control is preset to operate Sony brand video equipment.

Sony Equipment	Switch Position on Remote Control	Programmable Code Number
Beta, ED Beta VCRs	AV1	303
8 mm VCR	AV2	302
VHS VCR	AV3	301
DVD Player	DVD	751

If you have video equipment other than Sony brand that you want to control with the projection TV's remote control, use the following procedures to program the remote control.

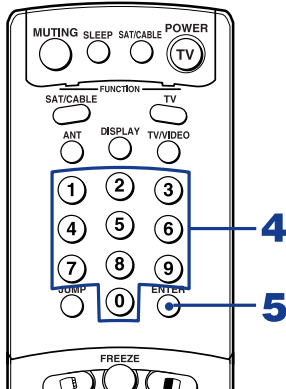
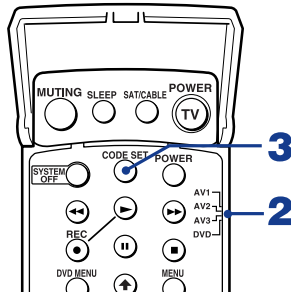
 The equipment must have infrared (IR) remote capability in order to be used with the remote control.



From the “Manufacturer’s Codes” listed on page 70, select the three-digit code number for the manufacturer’s code for your component. If more than one code number is listed, start with the number listed first. Use the code number to complete the following procedure.

To program a cable box or a satellite receiver

- 1** Open the panel of the remote control.
- 2** Press CODE SET inside the panel.
- 3** Close the panel and press SAT/CABLE (FUNCTION).
- 4** Enter the three-digit manufacturer’s code number using the 0-9 buttons.
- 5** Press ENTER.
- 6** To check if the code number works, aim the projection TV’s remote control at the component and press the green POWER button that corresponds with that component. If it responds, the programming is completed. If not, try using the other codes listed for that manufacturer.



To program video equipment

- 1** Open the panel of the remote control.
- 2** Move the slide switch to the desired component type.
- 3** Press CODE SET inside the panel.

You must perform step 4 within 10 seconds of step 3, or you must start again from step 3.
- 4** Close the panel and enter the three-digit manufacturer's code number using the 0-9 buttons.
- 5** Press ENTER.
- 6** To check if the code number works, aim the projection TV's remote control at the component, open the panel, and press the green POWER button. If it responds, the programming is completed. If not, try using the other codes listed for that manufacturer.

Tips

- ☐ If more than one code number is listed, try entering them one by one until you come to the correct code for your component.
- ☐ If you enter a new code number, the code number you previously entered at that setting is erased.
- ☐ In some rare cases, you may not be able to operate your component with the Sony remote control. In this case, use the component's own remote control unit.

Other Information

Manufacturer's Codes

VCRs

<i>Manufacturer</i>	<i>Code</i>
Sony	301
Admiral (M. Ward)	327
Aiwa	338, 344
Audio Dynamic	314, 337
Broksonic	319, 317
Canon	309, 308
Citizen	332
Craig	302, 332
Criterion	315
Curtis Mathes	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316, 317, 318, 341
Fisher	330, 335
Funai	338
General Electric	329, 304, 309
Go Video	322, 339, 340
Goldstar	332
Hitachi	306, 304, 305, 338
Instant Replay	309, 308
JC Penney	309, 305, 304, 330, 314, 336, 337
JVC	314, 336, 337, 345, 346, 347
Kenwood	314, 336, 332, 337
LXI (Sears)	332, 305, 330, 335, 338
Magnavox	308, 309, 310
Marantz	314, 336, 337
Marta	332
Memorex	309, 335

<i>Manufacturer</i>	<i>Code</i>
Minolta	305, 304
Mitsubishi/ MGA	323, 324, 325, 326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Optimus	327
Panasonic	308, 309, 306, 307
Pentax	305, 304
Philco	308, 309
Philips	308, 309, 310
Pioneer	308
Quasar	308, 309, 306
RCA/ PROSCAN	304, 305, 308, 309, 311, 312, 313, 310, 329
Realistic	309, 330, 328, 335, 324, 338
Sansui	314
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321, 335, 323, 324, 325, 326
Sharp	327, 328
Shintom	315
Signature 2000 (M. Ward)	338, 327
SV2000	338
Sylvania	308, 309, 338, 310
Symphonic	338
Tashiro	332
Tatung	314, 336, 337
Teac	314, 336, 338, 337
Technics	309, 308
Toshiba	312, 311

<i>Manufacturer</i>	<i>Code</i>
Wards	327, 328, 335, 331, 332
Yamaha	314, 330, 336, 337
Zenith	331

DVD Players

<i>Manufacturer</i>	<i>Code</i>
Sony	751
Panasonic	753
Pioneer	752
RCA	755
Toshiba	754

Cable Boxes

<i>Manufacturer</i>	<i>Code</i>
Hamlin/Regal	222, 223, 224, 225, 226
Jerrold/G. I.	201, 202, 203, 204, 205, 206, 207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific Atlanta	209, 210, 211
Tocom	216, 217
Zenith	212, 213

Satellite Receivers

<i>Manufacturer</i>	<i>Code</i>
Sony	801
General Electric	802
Hitachi	805
Hughes	804
Panasonic	803
RCA/ PROSCAN	802, 808
Toshiba	806, 807

Operating Other Components with Your Projection TV Remote Control

Operating a VCR

Open the panel and move the slide switch to the AV input you coded for this device.

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	green POWER button (inside the panel)
Change channels	CH +/-
Record	▶ and REC simultaneously
Play	▶
Stop	■
Fast forward	▶▶
Rewind the tape	◀◀
Pause	(press again to resume normal playback)
Search the picture forward or backward	▶▶ or ◀◀ during playback (release to resume normal playback)
Change input mode	Slide switch

Operating a DVD Player

Open the panel and move the slide switch to the DVD input you coded for this device.


<i>To Do This ...</i>	<i>Press</i>
Turn on/off	green POWER button (inside the panel)
Play	▶
Stop	■
Pause	(press again to resume normal playback)
Step through different tracks of an audio disc	▶▶ to step forward or ◀◀ to step backward
Step through different chapters of a video disc	CH+ to step forward or CH- to step backward
Display the DVD menu	DVD MENU
Select tracks directly	0-9 buttons
Display the menu (Setup)	MENU
Operate the DVD menu	↑, ↓, ←, →, ENTER

(Continued)

**Operating a Cable
Box**

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	SAT/CABLE (POWER)
Select Cable Box	SAT/CABLE (FUNCTION)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/-
Back to previous channel	JUMP

**Operating a Satellite
Receiver**

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	SAT/CABLE (POWER)
Select Satellite Receiver	SAT/CABLE (FUNCTION)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/-
Back to previous channel	JUMP
Display channel number	DISPLAY
Display DBS guide	GUIDE
Display DBS menu	MENU
Move highlight (cursor)	Joystick or arrows
Select item	

Troubleshooting

If, after reading these operating instructions, you have additional questions related to the use of your Sony television, please call our Customer Information Services Center at 1-800-222-SONY (7669) (U.S. residents only) or (416) 499-SONY (7669) (Canadian residents only).

Problem	Possible Remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"> <input type="checkbox"/> Make sure the projection TV's power cord is connected securely to the wall outlet. <input type="checkbox"/> Push the power button on the front of the projection TV. <input type="checkbox"/> Check to see if the TV/VIDEO setting is correct: when watching TV, set to TV, and when watching connected equipment, set to VIDEO 1, 2, 3, 4, 5 or 6. <input type="checkbox"/> Try another channel. It could be station trouble. <input type="checkbox"/> The Parental Control feature is activated (see "Using the Parent Menu" on page 60). <input type="checkbox"/> If your projection TV does not turn on, and a red light keeps flashing, your projection TV may need service. Call your local Sony Service Center.
Remote control does not operate	<ul style="list-style-type: none"> <input type="checkbox"/> Batteries could be weak. Replace the batteries. <input type="checkbox"/> Press TV (FUNCTION) when operating your projection TV. <input type="checkbox"/> Make sure the projection TV's power cord is connected securely to the wall outlet. <input type="checkbox"/> Locate the projection TV at least 3-4 feet away from fluorescent lights. <input type="checkbox"/> Check the orientation of the batteries.
Dark, poor or no picture (screen lit), good sound	<ul style="list-style-type: none"> <input type="checkbox"/> Adjust the Picture setting in the Video menu (see page 49). <input type="checkbox"/> Adjust the Brightness setting in the Video menu (see page 49). <input type="checkbox"/> Check antenna/cable connections. <input type="checkbox"/> Adjust the convergence again using FLASH FOCUS (see "Adjusting the Convergence Automatically – FLASH FOCUS™ –" on page 33).
Good picture, no sound	<ul style="list-style-type: none"> <input type="checkbox"/> Press MUTING so that "MUTING" disappears from the screen (see page 34). <input type="checkbox"/> Make sure Speaker is set to ON in the Audio menu (see page 52). <input type="checkbox"/> Check the MTS setting in the Audio menu (see "MTS" on page 51).
Cannot receive digital channels (when a DTV receiver is connected)	<ul style="list-style-type: none"> <input type="checkbox"/> Check the connections between the DTV receiver and the projection TV (see page 28). <input type="checkbox"/> Check your local listings to find out if you can receive digital broadcasts in your area.
Cannot receive upper channels (UHF) when using an antenna	<ul style="list-style-type: none"> <input type="checkbox"/> Change Cable to OFF (see page 53). <input type="checkbox"/> Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 54).
No color	<ul style="list-style-type: none"> <input type="checkbox"/> Adjust the Color settings in the Video menu (see page 49).
Only snow and noise appear on the screen	<ul style="list-style-type: none"> <input type="checkbox"/> Check the Cable setting in the Channel menu (see "Cable" on page 53). <input type="checkbox"/> Check the antenna/cable connections. <input type="checkbox"/> Make sure the channel is broadcasting programs. <input type="checkbox"/> Press ANT to change the input mode (see page 37).
Dotted lines or stripes	<ul style="list-style-type: none"> <input type="checkbox"/> Adjust the antenna. <input type="checkbox"/> Move the projection TV away from noise sources such as cars, neon signs, or hair-dryers.

(Continued)

Other Information

Problem	Possible Remedies
Projection TV is fixed to one channel	<ul style="list-style-type: none">❑ Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 54).❑ Check your Channel Fix settings (see page 54).
Double images or ghosts	<ul style="list-style-type: none">❑ Use a highly directional outdoor antenna or a cable (when the problem is caused by reflections from nearby mountains or tall buildings).
Cannot operate menu	<ul style="list-style-type: none">❑ If the item you want to choose appears in gray, you cannot select it.❑ Turn the projection TV's power off and on again.
Cannot receive any channels when using cable TV	<ul style="list-style-type: none">❑ Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 54).❑ Check your cable settings.❑ Make sure Cable is set to ON in the Channel menu (see page 53).
Cannot gain enough volume when using a cable box	<ul style="list-style-type: none">❑ Increase the volume of the cable box using the cable box's remote control. Then press TV (FUNCTION) and adjust the projection TV's volume.
Channel Index does not display all available channels	<ul style="list-style-type: none">❑ Make sure Cable is set to ON in the Channel menu (see "Cable" on page 53).❑ Use Auto Program in the Channel menu to add receivable TV channels that are not presently in TV memory (see page 54).
Cannot receive channels Unable to select a channel	<ul style="list-style-type: none">❑ Use Auto Program in the Channel menu to add receivable TV channels that are not presently in TV memory (see page 54).
Lost password	<ul style="list-style-type: none">❑ In the password screen (see page 60), enter the following master password: 4357. The master password clears your previous password; it cannot be used to temporarily unblock channels.
Cannot change channels with the remote control	<ul style="list-style-type: none">❑ Be sure you have not inadvertently switched your projection TV from channel 3 or 4 setting if you are using another device to change channels.❑ If you are using another device to control channels, be sure the "function" button for that device has been pressed, or the slide switch is set correctly. For example, if you are using your cable to control channels, be sure to press SAT/CABLE.
Cannot cycle through the other video equipment connected to the projection TV	<ul style="list-style-type: none">❑ Be sure the Video Label feature has not been set to Skip (see page 59).
There is a black box on the screen	<ul style="list-style-type: none">❑ You have selected a text option in the Setup menu and no text is available. (see page 58 to reset Setup selections) To turn this feature off, select OFF in the Caption Vision option. If you were trying to get closed captioning, select CC1 instead of Text 1-4.
There is no twin picture or it is just static	<ul style="list-style-type: none">❑ Be sure your twin picture is set to a video source/channel that has a program airing.❑ You may be tuned to a video input with nothing connected to it. Try cycling through your video inputs using TV/VIDEO.❑ Twin View is not set to receive a signal from the AUX input. If you have connected a VCR, DVD player or satellite receiver to the AUX input on the projection TV, it will not show in the second picture.

Problem	Possible Remedies
You get the same program in the window picture as in the main picture	<p>❑ Both may be set to the same channel. Try changing channels in either the main picture or the window picture.</p> <p>❑ You may be running all your channels through a cable box. The cable box will only unscramble one signal at a time, so you cannot use the Twin View feature. If possible, run a direct cable to your projection TV's VHF/UHF input (this will only work if your cable system provides an unscrambled signal.)</p>
You cannot get anything but TV channels in your second picture	❑ Be sure the video label has not been set to skip your video inputs. See the Setup menu on page 59.
Favorite Channel does not display your choices	❑ Verify that Favorite Channel is set to Manual in the Channel menu (see "Favorite Channel" on page 53).
Some video sources do not appear when you press TV/VIDEO	❑ Ensure that Video Label is not set to SKIP (see "Video Label" on page 59).

Specifications

Projection System	3 picture tubes, 3 lenses, horizontal in-line system	
Picture Tube	7-inch high-brightness monochrome tubes (6.3 raster size), with optical coupling and liquid cooling system	
Projection Lenses	High performance, large diameter hybrid lens F1.1	
Antenna	75 ohm external terminal for VHF/UHF	
Television System	NTSC, American TV Standard	
Screen Size (measured diagonally)	51 inches (KP-51HW40) 57 inches (KP-57HW40)	
Channel Coverage		
VHF	2-13	
UHF	14-69	
CATV	1-125	
Power Requirements	120V, 60 Hz	
Number of Inputs/Outputs		
Video (IN)	4	1 Vp-p, 75 ohms unbalanced, sync negative
S Video (IN)	3	Y: 1 Vp-p, 75 ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75 ohms
Audio (IN)	6	500 mVrms (100% modulation) Impedance: 47 kiloohms
AUDIO (VAR/FIX)	1	500 mVrms at the maximum volume setting (Variable) 500 mVrms (Fixed) Impedance (output): 2 kiloohms
TV Out	1	Video: 1 Vp-p 75 ohms unbalanced, Sync negative Audio: 500 mVrms (100% modulation) Impedance (output): 1 kiloohms
CONTROL S (IN/OUT)	1	minijacks
Component Video Input	2 (Y, P _B , P _R)	Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative P _B : 0.7 Vp-p, 75 ohms P _R : 0.7 Vp-p, 75 ohms
RF Inputs	2	
Converter	1	
Speaker Output	20 W × 2	
Dimensions (W × H × D)	47 1/8 × 51 5/8 × 24 7/8 inches (1,194 × 1,310 × 630 mm) (KP-51HW40) 52 1/4 × 54 1/4 × 27 1/4 inches (1,326 × 1,377 × 690 mm) (KP-57HW40)	
Mass	167 lb 9oz (76 kg) (KP-51HW40) 196 lb 3oz (89 kg) (KP-57HW40)	
Power Consumption		
In Use	230 W	
In Standby	Under 1 W	

Supplied Accessories	
Remote Control	RM-Y909
AA (R6) Batteries	2 supplied for remote control
Optional Accessories	
AV Cable	VMC-810/820/830 HG
Audio Cable	RKC-515HG
Control S Cable	RK-G69HG
Component Video Cable	VMC-10/30 HG
AV Receiver	STR-V555ES or equivalent

Design and specifications are subject to change without notice.

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<http://www.world.sony.com/>

Printed in U.S.A.

If, after reading this instruction manual, you have additional questions related to the use of your Sony projection TV, please call one of the following numbers (English only).

Customers in the continental United States contact the Direct Response

Center at:

1-800-222-SONY (7669)

Customers in Canada contact the Customer Relations Center at:

(416) 499-SONY (7669)

SERVICE MANUAL

RA-6 CHASSIS

<u>MODEL NAME</u>	<u>REMOTE COMMANDER</u>	<u>DESTINATION</u>	<u>CHASSIS NO.</u>
KP-51HW40	RM-Y909	US	SCC-P65G-A
KP-51HW40	RM-Y909	Canadian	SCC-P65G-A
KP-57HW40	RM-Y909	US	SCC-P65F-A
KP-57HW40	RM-Y909	Canadian	SCC-P65F-A

CORRECTION - 1


SUBJECT: EXPLODED VIEW AND ELECTRICAL PARTS LIST
A BOARD P/N CORRECTION

Correct the service manual as shown.
File this Correction with the service manual.

 : Corrected Item

Section 7: Exploded View (Page 96)

7-2. Chassis

INCORRECT			CORRECT		
REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO. DESCRIPTION
54	*A-1272-481-A	A BOARD, COMPLETE(VAR)		DELETE	

Section 8: Electrical Parts List (Page 112)

INCORRECT			CORRECT		
REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO. DESCRIPTION
	*A-1272-481-A	A BOARD, COMPLETE		*A-1299-596-A	A BOARD, COMPLETE

COLOR REAR VIDEO PROJECTOR
SONY®

SERVICE MANUAL

RA-6 CHASSIS

<u>MODEL NAME</u>	<u>REMOTE COMMANDER</u>	<u>DESTINATION</u>	<u>CHASSIS NO.</u>
KP-51HW40	RM-Y909	US	SCC-P65G-A
KP-51HW40	RM-Y909	Canadian	SCC-P65G-A
KP-57HW40	RM-Y909	US	SCC-P65F-A
KP-57HW40	RM-Y909	Canadian	SCC-P65F-A

SUPPLEMENT - 1

SUBJECT: NEW CRT'S INTRODUCED
AFFECTS S/N'S 90000001 - 90XXXXXX ONLY

Correct the service manual as shown.
File this Supplement with the service manual.

 : Modified Items:

- Section 3: Set Up Adjustments (Page 12, 13)
- Section 6: Diagrams
 - 6-3. Schematic Diagrams (Page 62)
- Section 7: Exploded Views
 - 7-2. Chassis (Page 96)
 - 7-3. Picture Tube (Page 97)
- Section 8: Electrical Parts List
 - CR Board (Page 98)
 - CG, CB Boards (Pages 99-100)
 - D Board (Page 123,128)

COLOR REAR VIDEO PROJECTOR
SONY®

Sony Corporation
Sony Technology Center
Technical Services
Service Promotion Department

English
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SECTION 3

SET-UP ADJUSTMENTS

3-1. SCREEN VOLTAGE ADJUSTMENT (COARSE ADJUSTMENT)

1. Receive the Monoscope signal.
2. Set 50% BRIGHTNESS and minimum PICTURE.
3. Turn the red VR on the FOCUS block all the way to the left and then gradually turn it to the right until the point where you can see the retrace line.
4. Next gradually turn it to the left to the position where the retrace line disappears.

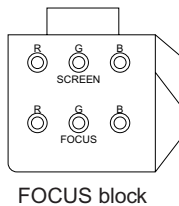


Fig. 3-1

3-2. SCREEN (G2) ADJUSTMENT (FINE ADJUSTMENT)

Fine Mode is recommended to set screen controls to their optimal condition. It is necessary to build the simple jig, illustrated below, using 3-watt resistors. Please note, that if the proper voltage is not obtained with their listed values, resistors, then please increase or decrease one of the values in the resistor network to obtain the correct voltage.

1. Select VIDEO1 mode without signals.
2. Connect G2 JIG.
3. SW on JIG.
4. Connect an oscilloscope to the TP7101(KR), TP7202(KG) and TP7301(KB) of CR board, CG board and CB board.
5. Adjust R, G and B screen voltage to $177.5 \pm 0.5V$ with screen VR on the Focus block.

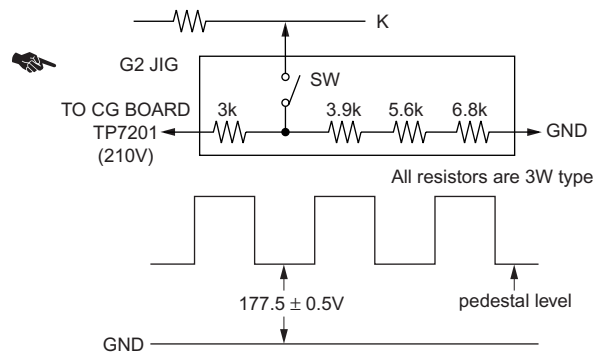


Fig. 3-2

3-3. DEFLECTION YOKE TILT ADJUSTMENT

1. Connect the color bar generator monoscope pattern to Video 1 input.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Loosen the deflection yoke set screw and align the tilt of the Deflection Yoke so that the bars at the center of the monoscope pattern are horizontal.
4. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT.
5. The tilt of the deflection yoke for red is aligned in the mode Cover the both green and blue picture lenses with the lens caps and the tilt of the deflection yoke for blue is aligned with in

the mode Cover the both green and red picture lenses with the lens caps is aligned the same as was done for green.

Note: Instead of items 2 and 5, you can cut off the unnecessary color beams by controlling the service mode CXA2150P-2 0 RGBS.

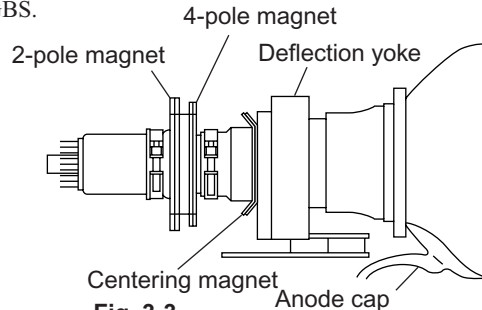


Fig. 3-3

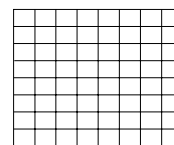
3-4. FOCUS LENS ADJUSTMENT

In this adjustment, use the remote commander in the service mode.

For details of the usage of the service mode and the remote commander, please refer the item 3-9. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER.

1. Loosen the lens screw.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Turn the green lens to adjust to the optimum focus point with the crosshatch signal.
4. Tighten the lens screw.
5. Cover the both green and blue picture lenses with the lens caps to show only the red color.
6. Adjust red CRT lens just the same as green.
7. Cover the both green and red picture lenses with the lens caps to show only the blue color.
8. Adjust blue CRT lens just the same as green.
9. After adjusting the items 3-5. Focus VR Adjustment, 3-6. 2-Pole Magnet Adjustment and 3-7. 4-Pole Magnet Adjustment, adjust again to the optimum focus point.

*: Every time you press 6, the test signal changes to "crosshatch+video signal" - "crossbatch+borderline(black)" - "crosshach(black)" - "dots(black)" - off.



Test signal

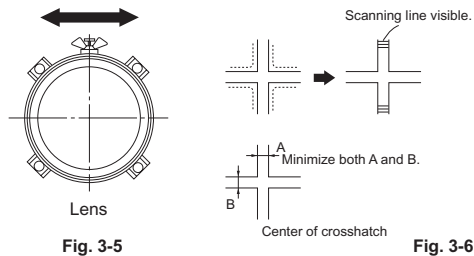
Fig. 3-4

Note: Instead of items 2, 5 and 7, you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

3-5. FOCUS VR ADJUSTMENT

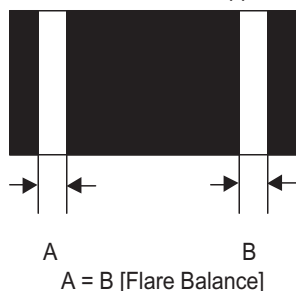
1. Set generator to crosshatch.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Turn the green focus VR on the focus block to adjust to the optimum focus point with the crosshatch signal.
4. Cover the both green and blue picture lenses with the lens caps to show only the red color.
5. Turn the red focus VR on the focus block to adjust to the optimum focus point with the crosshatch signal.
6. Cover the both green and red picture lenses with the lens caps to show only the blue color.
7. Turn the blue focus VR on the focus block to adjust to the optimum focus point with the crosshatch signal.
8. After adjusting the items 3-4. Focus Lens Adjustment, 3-6. 2-Pole Magnet Adjustment and 3-7. 4-Pole Magnet Adjustment, adjust again to the optimum focus point.

Note: Instead of items 2, 4 and 6, you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1



3-6 2-POLE MAGNET AND CENTERING MAGNET ADJUSTMENT

1. Either select the PJED Test Pattern dot signal or apply an external dot signal
2. Set the Picture control to Max., Brightness to 50% and the VM to OFF, in the customer users menu.
3. Cut off the red and blue CRTs by controlling the service mode 2150P-2 1 RGBS.
4. Turn the green focus control counterclockwise so the picture is slightly defocus (just off of focus). Confirm that the dot size increases slightly.
5. Adjust the the 2-pole magnet so that the left and right side flare levels (compare the dots that are indicated in the white areas of the figure below) are balanced and are approximately equal.



6. Readjust the Green focus control to best focus position. (minimum dot diameter)
7. Apply a Monoscope signal to the set.
8. Adjust the H-CENTERING and V-CENTERING roughly By the centering magnets.

9. Check 2-Pole magnet adjustment. If necessary, repeat steps 1 – 6.
10. Adjust the Red 2-pole magnet and centering magnet in the same manner.
11. Adjust the Blue 2-pole magnet and centering magnet in the same manner

3-7. CENTERING MAGNET ADJUSTMENT

Not required - Combined with 2-Pole Magnet adjustment

3-8. 4-POLE MAGNET ADJUSTMENT

1. Set the picture mode to "Pro" and picture to MAX.
2. Receive the Dot signal.
3. Cover the both red and blue picture lenses with the lens caps to show only the green color.
4. Turn the green focus VR on the focus block to the right and set the spot will become smaller.
5. Adjust the 4-Pole Magnet so that the spot becomes round for green and red.
6. Adjust blue spot to an oval shape X:Y = 1:1.2

Note: Instead of item 2 you can cut off the unnecessary color beams by controlling the service mode 2150p-2 1 RGBS.

Use the center dot

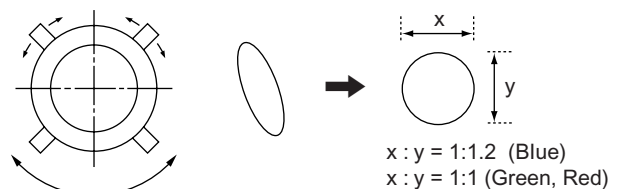
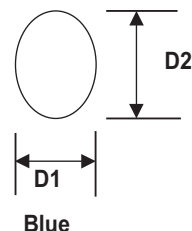


Fig. 3-8

3-9 BLUE DEFOCUS ADJUSTMENT

1. Setup: Apply a Dot Hatch Signal and set the mode to Vivid Mode and verify the color temperature is set to Cool in the users menu. Cut off the red and green CRT's by controlling the service mode 2150P-2 1 RGBS.
2. Turn the Blue focus control clockwise, until the dot at the center becomes oval. (see figure below).

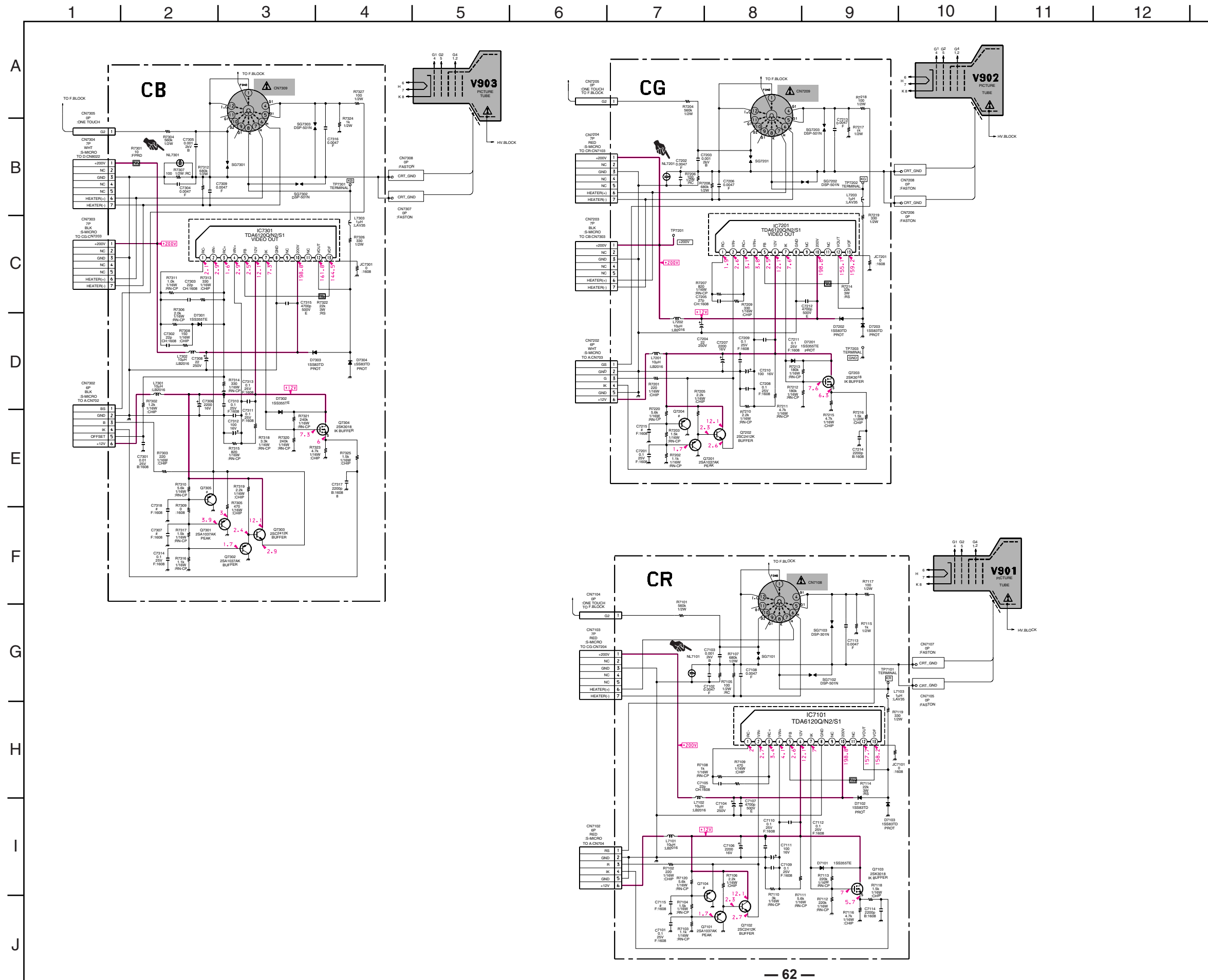


$$D1:D2 = 1:1.2$$

3. Confirm the flare is minimal while the bright spot is located in the center. If not, please readjust the 2 and 4 pole magnets.
4. Check for uniformity on a 100% IRE all white field.

CR/CG/CB BOARD SCHEMATIC

KP-51HW40/57HW40
(AFFECTS S/N'S 90000001-90XXXXXX ONLY)





SECTION 7: EXPLODED VIEWS

Components not identified by a part number or description are not stocked because they are seldom required for routine service.

The component parts of an assembly are indicated by the reference numbers in the far right column of the parts list and within the dotted lines of the diagram.

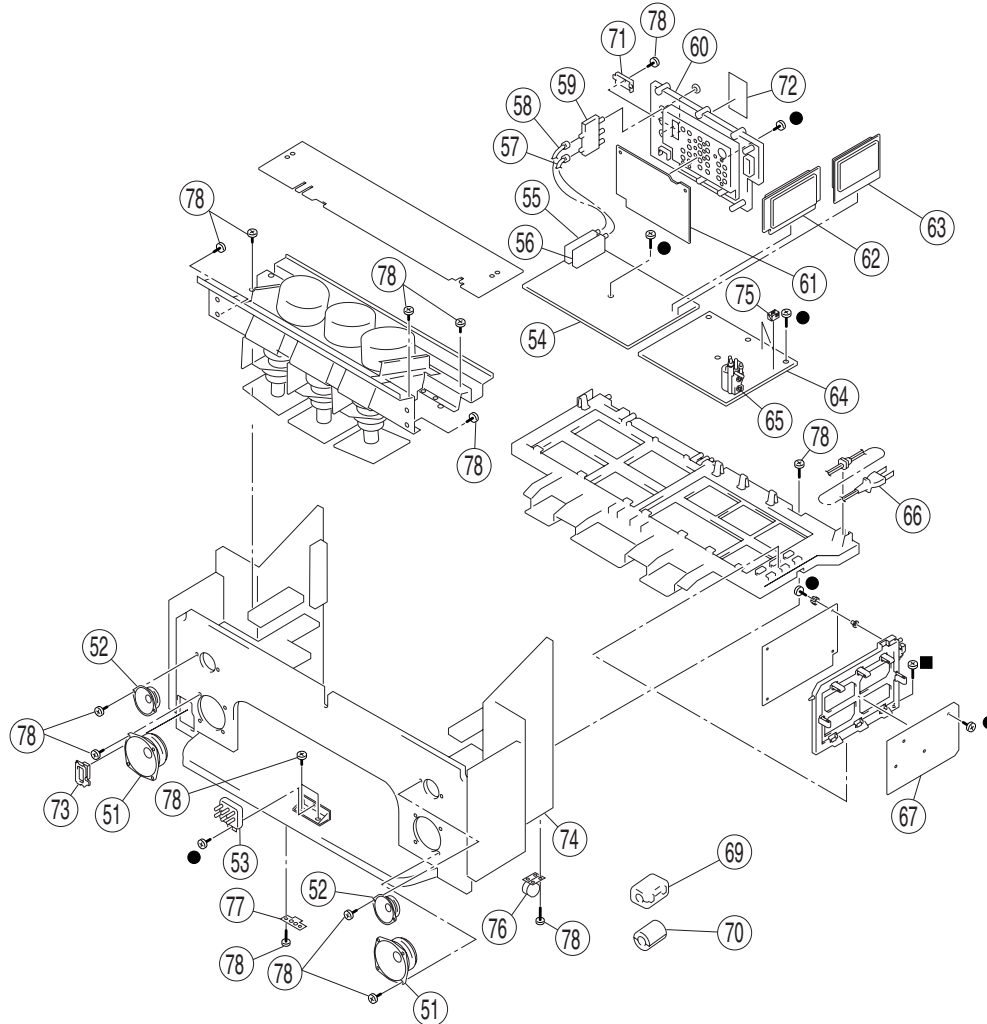
* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.





NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-2. CHASSIS

- 7-685-648-79 +BVTP 3X12
- 7-685-661-14 +BVTP 4X12




REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	[Assembly includes]
51	1-544-894-11	SPEAKER (13cm)	 65	1-453-285-21	FBT ASSY, NX-4006//X4P4 (T8005)	
52	1-529-403-31	SPEAKER (6.6cm)	 66	1-790-130-11	CORD, AC POWER(WITHCONNECTOR)	
 53	1-223-925-11	RESISTOR ASSY(HIGH-VOLTAGE)(FOCUS PACK)	67 *	A-1316-566-A	G BOARD, COMPLETE	
54 *	A-1272-481-A	A BOARD, COMPLETE (VAR)	69	1-500-021-11	CLAMP, SLEEVE FERRITE	
54 *	A-1299-596-A	A BOARD, COMPLETE	70	1-543-653-11	CORE ASSY, BEAD (DIVISION TYPE)	
55	8-598-542-20	TUNER, FSS BTF-WA412 (TU2)	71	4-069-675-01	CAP, TERMINAL BOARD	
56	8-598-430-50	TUNER, FSS BTF-FA401 (TU1)	72	4-081-576-11	LABEL, TERMINAL	
57 *	1-557-056-31	CABLE, P-P	73 *	4-084-570-01	COVER, CABINET (HW)	
58 *	1-551-488-91	CABLE, P-P	74	X-4039-324-1	CABINET (57) ASSY, BOTTOM (57HW40)	[73, 76, 77]
59	1-771-787-11	SWITCH, RF ANTENNA	74 *	X-4039-330-1	CABINET (51) ASSY, BOTTOM (51HW40)	[73, 76, 77]
60	4-081-961-01	BOARD, TERMINAL	75	3-710-578-01	COVER, VOLUME, 6 MOLD	
61 *	A-1373-870-A	U BOARD, COMPLETE (VAR)	76	4-040-755-01	CASTER (DIA. 30)	
62 *	A-1136-218-A	B BOARD, COMPLETE	77	4-075-020-01	FOOT, PLASTIC	
63 *	A-1299-523-A	AD BOARD, COMPLETE	78	4-081-063-01	SCREW,DOME WASHER HEX TAP 4X20	
 64 *	A-1300-417-A	D BOARD, COMPLETE				


SECTION 7: EXPLODED VIEWS

Components not identified by a part number or description are not stocked because they are seldom required for routine service.

The component parts of an assembly are indicated by the reference numbers in the far right column of the parts list and within the dotted lines of the diagram.

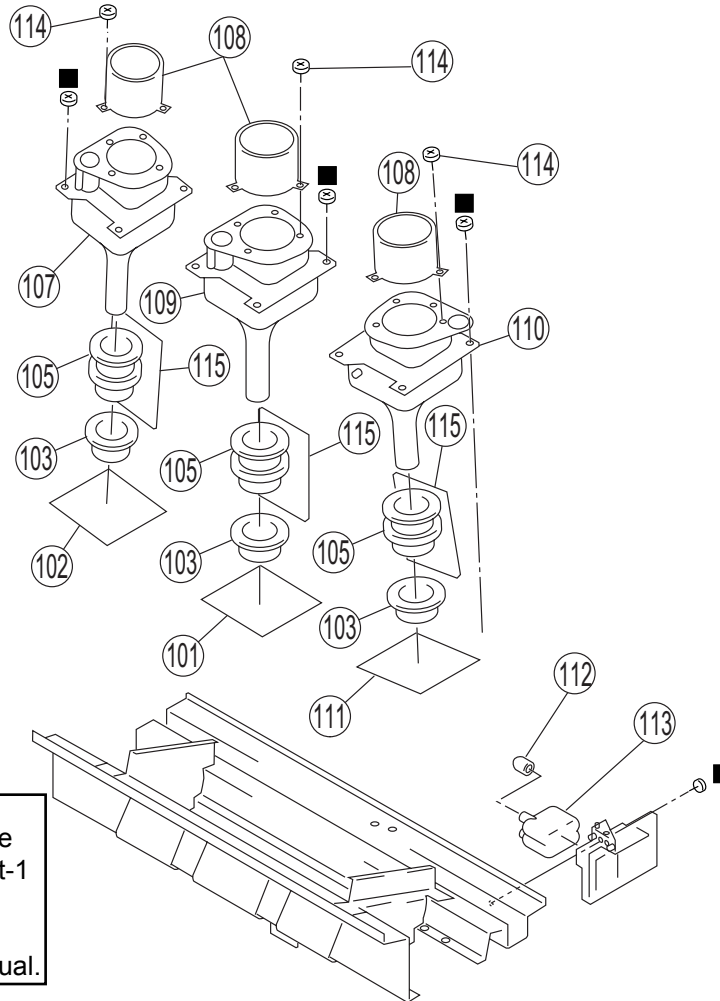
* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.














NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-3. PICTURE TUBE

■ 7-685-650-79 SCREW +BVTP 3X16





NOTE:
For S/N's 90000001-90XXXXXX, use CRT P/N's referred to in Supplement-1 (listed below)
For S/N's 97000001-98XXXXXX, use CRT P/N's listed in original manual.


REF. NO.	PART NO.	DESCRIPTION	[Assembly Includes]	REF. NO.	PART NO.	DESCRIPTION	[Assembly Includes]
101*	A-1332-241-A	CG BOARD, COMPLETE		114	4-052-894-01	SCREW (4X20) , HEAD TAPPING	
102*	A-1332-240-A	CR BOARD, COMPLETE		115*	A-1342-598-A	V BOARD, COMPLETE	
 103	1-452-790-31	2P/4P MAGNET ASSY.					
 105	1-451-537-21	DEFLECTION YOKE					
  107	8-733-648-05	CRT 07MVC41 (R) - L (VM) (57HW40)					
  107	8-733-650-05	CRT 07MVC31 (R) - L (VM) (51HW40)					
108	4-083-750-01	LENS (DELTA 260) (57HW40)					
108	4-083-751-01	LENS (DELTA 250) (51HW40)					
  109	8-733-652-05	CRT 07MVC21 (G) - L (VM)					
  110	8-733-647-05	CRT 07MVC41 (B) - L (VM) (57HW40)					
  110	8-733-649-05	CRT 07MVC31 (B) - L (VM) (51HW40)					
111*	A-1332-242-A	CB BOARD, COMPLETE					
112	4-373-137-01	CAP (Z) , RUBBER					
 113	8-598-955-31	BLOCK ASSY, HV HVB- 1031					

SECTION 8: ELECTRICAL PARTS LIST

CR

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components in this manual identified by the following symbol:  indicate parts that have been carefully factory-selected to satisfy regulations regarding X-ray radiation for each set.

Should replacement be required for one of these components, replace only with the value originally used.

* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

RESISTORS

- All resistors are in ohms
- F : nonflammable
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When ordering parts by reference number, please include the board name.

CR

* A-1332-240-A CR BOARD, COMPLETE

4-382-854-11 SCREW (M3X10), P, SW (+)


* 7-651-000-50 GREASE, SILICON (G-746) 200G

CAPACITOR

C7101	1-164-156-11	CERAMIC CHIP	0.1UF	25V
C7102	1-101-003-00	CERAMIC	0.0047UF	50V
C7103	1-104-570-11	CERAMIC	0.001UF 10%	2KV
C7104	1-107-662-11	ELECT	22UF 20%	250V
C7105	1-162-918-11	CERAMIC CHIP	18PF 5%	50V
C7106	1-126-768-11	ELECT	2200UF 20%	16V
C7107	1-161-830-00	CERAMIC	0.0047UF	500V
C7108	1-101-003-00	CERAMIC	0.0047UF	50V
C7109	1-164-156-11	CERAMIC CHIP	0.1UF	25V
C7110	1-164-156-11	CERAMIC CHIP	0.1UF	25V
C7111	1-126-933-11	ELECT	100UF 20%	16V
C7112	1-164-156-11	CERAMIC CHIP	0.1UF	25V
C7113	1-101-003-00	CERAMIC	0.0047UF	50V
C7114	1-162-966-11	CERAMIC CHIP	0.0022UF 10%	50V

CONNECTOR

*	CN7102	1-564-509-11	PLUG, CONNECTOR	6P
*	CN7103	1-564-510-11	PLUG, CONNECTOR	7P
	CN7104	1-785-879-11	CONNECTOR, ONE TOUCH	
	CN7105	1-695-915-11	TAB (CONTACT)	
	CN7107	1-695-915-11	TAB (CONTACT)	

	CN7108	1-251-182-11	SOCKET, CRT
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DIODE

D7101	8-719-404-50	MA111-TX
D7101	8-719-988-61	1SS355TE-17
D7102	8-719-901-83	1SS83
D7103	8-719-901-83	1SS83

IC

IC7101	8-759-680-01	TDA6120Q/N2/S1
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JUMPER RESISTOR

JC7101	1-216-864-11	SHORT
--------	--------------	-------

COIL

L7101	1-469-555-21	INDUCTOR 10UH
L7102	1-469-555-21	INDUCTOR 10UH





NEON LAMP

NL7101	1-517-778-21	NEON LAMP
--------	--------------	-----------


TRANSISTOR


Q7101	8-729-026-49	2SA1037AK-T146-R
Q7102	8-729-422-27	2SD601A-Q
Q7103	8-729-048-50	2SK3018-T106


NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

CR **CG**

REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
RESISTOR						C7209	1-164-156-11	CERAMIC CHIP	0.1μF	25V	
R7101	1-260-132-11	CARBON	560K	5%	1/2W	C7210	1-126-933-11	ELECT	100μF	20% 16V	
R7102	1-216-813-11	RES-CHIP	220	5%	1/16W	C7211	1-164-156-11	CERAMIC CHIP	0.1μF	25V	
R7103	1-218-693-11	METAL CHIP	1.1K	0.5%	1/16W	C7212	1-161-830-00	CERAMIC	0.0047μF	500V	
R7104	1-218-696-11	METAL CHIP	1.5K	0.5%	1/16W	C7213	1-101-003-00	CERAMIC	0.0047μF	50V	
R7105	1-219-743-11	CARBON	100	5%	1/2W	C7214	1-162-966-11	CERAMIC CHIP	0.0022μF	10% 50V	
R7106	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	C7215	1-164-156-11	CERAMIC CHIP	0.1μF	25V	
R7107	1-260-133-11	CARBON	680K	5%	1/2W	CONNECTOR					
R7108	1-218-692-11	METAL CHIP	1K	0.5%	1/16W	CN7202	*1-564-509-11	PLUG,CONNECTOR	6P		
R7109	1-216-815-11	RES-CHIP	330	5%	1/16W	CN7203	*1-564-510-11	PLUG,CONNECTOR	7P		
R7110	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W	CN7204	*1-564-510-11	PLUG,CONNECTOR	7P		
R7111	1-218-709-11	METAL CHIP	5.1K	0.5%	1/16W	CN7205	1-785-879-11	CONNECTOR, ONE TOUCH			
R7112	1-218-748-11	METAL CHIP	220K	0.5%	1/16W	CN7206	1-695-915-11	TAB (CONTACT)			
R7113	1-218-748-11	METAL CHIP	220K	0.5%	1/16W	CN7208	1-695-915-11	TAB (CONTACT)			
R7114	1-215-925-11	METAL OXIDE	22K	5%	3W	⚠ CN7209	1-251-182-11	SOCKET, CRT			
R7115	1-260-328-11	CARBON	1K	5%	1/2W	DIODE					
R7116	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	D7201	8-719-988-61	1SS355TE-17			
R7117	1-260-087-11	CARBON	100	5%	1/2W	D7202	8-719-901-83	1SS83			
R7118	1-216-823-11	RES-CHIP	1.5K	5%	1/16W	D7203	8-719-901-83	1SS83			
R7119	1-260-093-11	CARBON	330	5%	1/2W	IC					
R7120	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W	IC7201	8-759-680-01	TDA6120Q/N2/S1			
SPARK GAP						JUMPER RESISTOR					
SG7101	1-519-422-11	GAP, SPARK				JC7201	1-216-864-11	SHORT			
SG7102	1-517-729-31	GAP, SPARK				COIL					
SG7103	1-519-421-11	GAP, DISCHARGE				L7201	1-469-555-21	INDUCTOR	10μH		
<div>CG</div>						L7202	1-469-555-21	INDUCTOR	10μH		
*A-1332-241-A CG BOARD, COMPLETE						 NEON LAMP					
4-382-854-11		SCREW (M3X10), P, SW (+)				NL7201	1-517-778-21				
*7-651-000-50		GREASE,SILICON (G-746) 200G				TRANSISTOR					
CAPACITOR						Q7201	8-729-026-49	2SA1037AK-T146-R			
C7201	1-164-156-11	CERAMIC CHIP	0.1μF		25V	Q7202	8-729-422-27	2SD601A-Q			
C7202	1-101-003-00	CERAMIC	0.0047μF		50V	Q7203	8-729-048-50	2SK3018-T106			
C7203	1-104-570-11	CERAMIC	0.001μF	10%	2KV	RESISTOR					
C7204	1-107-662-11	ELECT	22μF	20%	250V	R7201	1-216-813-11	RES-CHIP	220	5% 1/16W	
C7205	1-162-920-11	CERAMIC CHIP	27pF	5%	50V	R7202	1-218-693-11	METAL CHIP	1.1K	0.50% 1/16W	
C7206	1-101-003-00	CERAMIC	0.0047μF		50V						
C7207	1-126-768-11	ELECT	2200μF	20%	16V						
C7208	1-164-156-11	CERAMIC CHIP	0.1μF		25V						

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

CG **CB**

CB

*A-1332-242-A

CB BOARD, COMPLETE

4-382-854-11

SCREW (M3X10), P, SW (+)

*7-651-000-50

GREASE,SILICON (G-746) 200G

CAPACITOR

C7301

1-162-970-11

CERAMIC CHIP

0.01μF

10%

25V

C7302

1-162-919-11

CERAMIC CHIP

22pF

5%

50V

C7303

1-162-919-11

CERAMIC CHIP

22pF

5%

50V

C7304

1-101-003-00

CERAMIC

0.0047μF

50V

C7305

1-104-570-11

CERAMIC

0.001μF

10%

2KV

C7306

1-126-768-11

ELECT

2200μF

20%

16V

C7308

1-107-662-11

ELECT

22μF

20%

250V

C7309

1-101-003-00

CERAMIC

0.0047μF

0V

C7310

1-164-156-11

CERAMIC CHIP

0.1μF

25V

C7311

1-164-156-11

CERAMIC CHIP

0.1μF

25V

C7312

1-126-933-11

ELECT

100μF

20%

16V

C7313

1-164-156-11

CERAMIC CHIP

0.1μF

25V

C7314

1-164-156-11

CERAMIC CHIP

0.1μF

25V

C7315

1-161-830-00

CERAMIC

0.0047μF

500V

C7316

1-101-003-00

CERAMIC

0.0047μF

50V

C7317

1-162-966-11

CERAMIC CHIP

0.0022μF

10%

50V

CONNECTOR

CN7302

*1-564-509-11

PLUG,CONNECTOR

6P

CN7303

*1-564-510-11

PLUG,CONNECTOR

7P

CN7304

*1-564-510-11

PLUG,CONNECTOR

7P

CN7305

1-785-879-11

CONNECTOR, ONE TOUCH

CN7307

1-695-915-11

TAB (CONTACT)

CN7308

1-695-915-11

TAB (CONTACT)

CN7309

1-251-182-11

SOCKET, CRT

DIODE

D7301

8-719-988-61

1SS355TE-17

D7302

8-719-988-61

1SS355TE-17

D7303

8-719-901-83

1SS83

D7304

8-719-901-83

1SS83

IC

IC7301

8-759-680-01

TDA6120Q/N2/S1

JUMPER RESISTOR

JC7301

1-216-864-11

SHORT

COIL

L7301

1-469-555-21

INDUCTOR 10μH

L7302

1-469-555-21

INDUCTOR 10μH

NEON LAMP

NL7301

1-517-778-21

TRANSISTOR

Q7301

8-729-026-49

2SA1037AK-T146-R

Q7302

8-729-026-49

2SA1037AK-T146-R

Q7303

8-729-422-27

2SD601A-Q

Q7304

8-729-048-50

2SK3018-T106

RESISTOR

R7301

1-249-393-11

CARBON

10

5%

1/4W

R7302

1-216-822-11

RES-CHIP

1.2K

5%

1/16W

R7303

1-216-813-11

RES-CHIP

220

5%

1/16W

R7304

1-260-132-11

CARBON

560K

5%

1/2W

R7305

1-216-817-11

RES-CHIP

470

5%

1/16W

R7306

1-218-692-11

METAL CHIP

1K

0.5%

1/16W

R7307

1-219-743-11

CARBON

100

5%

1/2W

R7308

1-216-809-11

RES-CHIP

100

5%

1/16W

R7310

1-218-710-11

METAL CHIP

5.6K


0.5%

1/16W

***A-1332-242-A CB BOARD, COMPLETE**

4-382-854-11 SCREW (M3X10), P, SW (+)
*7-651-000-50 GREASE,SILICON (G-746) 200G



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R857	1-216-838-11	RES-CHIP	27K	5%	1/16W	NETWORK RESISTOR					
R858	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	RB1	1-233-576-11	RES, CHIP NETWORK	100		
R859	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W	RB2	1-233-576-11	RES, CHIP NETWORK	100		
R860	1-249-389-11	CARBON	4.7	5%	1/4W	RB3	1-233-576-11	RES, CHIP NETWORK	100		
R861	1-249-389-11	CARBON	4.7	5%	1/4W	RB4	1-233-576-11	RES, CHIP NETWORK	100		
R862	1-216-839-11	RES-CHIP	33K	5%	1/16W	RB5	1-233-576-11	RES, CHIP NETWORK	100		
R863	1-216-841-11	RES-CHIP	47K	5%	1/16W	RB6	1-233-576-11	RES, CHIP NETWORK	100		
R864	1-216-839-11	RES-CHIP	33K	5%	1/16W	TUNER					
R865	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W	TU1	8-598-430-50	TUNER, FSS BTF-FA401			
R866	1-216-841-11	RES-CHIP	47K	5%	1/16W	TU2	8-598-542-20	TUNER, FSS BTF-WA412			
R867	1-216-837-11	RES-CHIP	22K	5%	1/16W	VIBRATOR					
R868	1-216-837-11	RES-CHIP	22K	5%	1/16W	X1	1-577-110-11	VIBRATOR, CRYSTAL			
R869	1-216-834-11	RES-CHIP	12K	5%	1/16W	X301	1-567-505-11	OSCILLATOR, CRYSTAL			
R870	1-216-841-11	RES-CHIP	47K	5%	1/16W	X302	1-767-179-31	VIBRATOR, CERAMIC			
R871	1-216-809-11	RES-CHIP	100	5%	1/16W	X303	1-567-505-11	OSCILLATOR, CRYSTAL			
R872	1-216-809-11	RES-CHIP	100	5%	1/16W	X304	1-767-179-31	VIBRATOR, CERAMIC			
R873	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	X305	1-781-282-11	VIBRATOR, CERAMIC			
R874	1-216-841-11	RES-CHIP	47K	5%	1/16W	X306	1-767-989-11	VIBRATOR, CERAMIC			
R875	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	X307	1-760-895-21	VIBRATOR, CERAMIC			
R876	1-216-841-11	RES-CHIP	47K	5%	1/16W	X701	1-579-358-21	VIBRATOR, CRYSTAL			
R877	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	<div></div> <div>* A-1300-417-A D BOARD, COMPLETE</div>					
R878	1-216-821-11	RES-CHIP	1K	5%	1/16W						
R879	1-216-821-11	RES-CHIP	1K	5%	1/16W						
R880	1-216-809-11	RES-CHIP	100	5%	1/16W						
R881	1-216-809-11	RES-CHIP	100	5%	1/16W	3-710-578-01 COVER, VOLUME, 6 MOLD 4-382-854-11 SCREW (M3X10), P, SW (+) 7-682-952-09 SCREW +PSW 3X16					
R882	1-216-809-11	RES-CHIP	100	5%	1/16W	CAPACITOR					
R883	1-216-832-11	RES-CHIP	8.2K	5%	1/16W	C8001	1-137-372-11	MYLAR	0.022μF	5%	50V
R884	1-216-833-11	RES-CHIP	10K	5%	1/16W	C8002	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
R885	1-216-833-11	RES-CHIP	10K	5%	1/16W	C8003	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
R886	1-216-833-11	RES-CHIP	10K	5%	1/16W	C8004	1-104-666-11	ELECT	220μF	20%	25V
R887	1-216-821-11	RES-CHIP	1K	5%	1/16W	C8005	1-126-942-61	ELECT	1000μF	20%	25V
R888	1-216-849-11	RES-CHIP	220K	5%	1/16W	C8006	1-126-942-61	ELECT	1000μF	20%	25V
R889	1-216-807-11	RES-CHIP	68	5%	1/16W	C8007	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
R890	1-216-807-11	RES-CHIP	68	5%	1/16W	C8008	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
R891	1-216-807-11	RES-CHIP	68	5%	1/16W	C8009	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
R892	1-216-837-11	RES-CHIP	22K	5%	1/16W	C8010	1-136-177-00	FILM	1μF	5%	50V
R893	1-216-857-11	RES-CHIP	1M	5%	1/16W	C8011	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
R895	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	C8012	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
R896	1-216-864-11	SHORT				C8013	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
R897	1-216-821-11	RES-CHIP	1K	5%	1/16W	C8014	1-104-665-11	ELECT	100μF	20%	25V
R898	1-216-805-11	RES-CHIP	47	5%	1/16W						
R899	1-216-821-11	RES-CHIP	1K	5%	1/16W						



NOTE: The components identified by shading and mark are critical for safety. Replace only with part number specified.

A component identified by this symbol indicates that it has been carefully factory-selected to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R8206	1-249-377-11	CARBON	0.47	5%	1/4W	C5007	1-164-645-11	CERAMIC	1000PF	10%	500V
R8208	1-260-288-11	CARBON	0.47	5%	1/2W	C5008	1-164-645-11	CERAMIC	1000PF	10%	500V
R8209	1-216-833-11	RES-CHIP	10K	5%	1/16W	C5009	1-126-953-11	ELECT	2200UF	20%	35V
R8210	1-216-809-11	RES-CHIP	100	5%	1/16W	C5010	1-126-953-11	ELECT	2200UF	20%	35V
R8211	1-215-906-11	METAL OXIDE	15	5%	3W	C5011	1-164-645-11	CERAMIC	1000PF	10%	500V
R8212	1-215-907-11	METAL OXIDE	22	5%	3W	C5012	1-164-645-11	CERAMIC	1000PF	10%	500V
R8213	1-216-821-11	RES-CHIP	1K	5%	1/16W	C5015	1-115-758-11	ELECT	470UF	20%	16V
R8216	1-216-833-11	RES-CHIP	10K	5%	1/16W	C5016	1-126-942-61	ELECT	1000UF	20%	25V
R8217	1-216-821-11	RES-CHIP	1K	5%	1/16W	C5017	1-126-942-61	ELECT	1000UF	20%	25V
R8218	1-260-123-11	CARBON	100K	5%	1/2W	C5018	1-126-952-11	ELECT	1000UF	20%	35V
R8219	1-249-377-11	CARBON	0.47	5%	1/4W	C5019	1-126-952-11	ELECT	1000UF	20%	35V
R8220	1-216-821-11	RES-CHIP	1K	5%	1/16W	C5020	1-110-626-11	ELECT	330UF	20%	160V
R8223	1-218-748-11	METAL CHIP	220K	0.5%	1/16W	C5021	1-115-771-51	ELECT	0.0047F	20%	16V
R8224	1-260-127-11	CARBON	220K	5%	1/2W	C5022	1-126-947-11	ELECT	47UF	20%	25V
R8225	1-260-292-11	CARBON	1	5%	1/2W	C5024	1-126-947-11	ELECT	47UF	20%	25V
R8228	1-260-314-11	CARBON	68	5%	1/2W	C5025	1-126-947-11	ELECT	47UF	20%	25V
R8230	1-218-751-11	METAL CHIP	300K	0.5%	1/16W	C5026	1-126-947-11	ELECT	47UF	20%	25V
TRANSFORMER						C5027	1-126-951-11	ELECT	470UF	20%	35V
T8001	1-435-142-11	TRANSFORMER, FERRITE (DFT)				C5028	1-126-951-11	ELECT	470UF	20%	35V
T8002	1-437-400-11	TRANSFORMER, FERRITE (HDT)				C5029	1-107-639-11	ELECT	47UF	20%	160V
T8003	1-437-401-11	TRANSFORMER, FERRITE (HOT)				C5030	1-126-947-11	ELECT	47UF	20%	25V
T8004	1-437-399-21	TRANSFORMER, FERRITE (LOT)				C5031	1-126-768-11	ELECT	2200UF	20%	16V
T8005	1-453-285-21	FBT ASSY, NX-4006//X4P4				C5038	1-126-947-11	ELECT	47UF	20%	25V
THERMISTOR						C5039	1-126-947-11	ELECT	47UF	20%	25V
TH8001	1-800-193-00	THERMISTOR				C5040	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
VARIABLE RESISTOR						C5041	1-126-767-11	ELECT	1000UF	20%	16V
VR8001	1-225-628-91	RES, VAR, ADJ, CERMET	5K			C5042	1-126-963-11	ELECT	4.7UF	20%	50V
VR8002	1-225-632-91	RES, VAR, ADJ, CERMET	100K			C5043	1-126-935-11	ELECT	470UF	20%	16V
* A-1316-566-A G BOARD, COMPLETE						C5047	1-162-970-11	CERAMIC CHIP	0.01UF	10%	16V
1-533-223-11 HOLDER, FUSE						C5049	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
* 4-374-846-01 COVER, CAPACITOR, CAP TYPE						C5050	1-128-554-11	ELECT	330UF	20%	63V
4-382-854-11 SCREW (M3X10), P, SW (+)						C5051	1-126-961-11	ELECT	2.2UF	20%	50V
CAPACITOR						C5053	1-126-967-11	ELECT	47UF	20%	50V
C5001	1-164-645-11	CERAMIC	1000PF	10%	500V	C5054	1-126-955-11	ELECT	4700UF	20%	35V
C5002	1-164-645-11	CERAMIC	1000PF	10%	500V	C5055	1-126-933-11	ELECT	100UF	20%	16V
C5006	1-104-665-11	ELECT	100UF	20%	25V	C6001	1-126-967-11	ELECT	47UF	20%	50V
						C6002	1-104-666-11	ELECT	220UF	20%	25V
						C6004	1-126-967-11	ELECT	47UF	20%	50V
						C6008	1-117-228-11	MYLAR	2.2UF	10%	450V
						C6012	1-119-888-51	CERAMIC	2200PF	20%	250V
						C6013	1-119-888-51	CERAMIC	2200PF	20%	250V
						C6014	1-104-708-11	MYLAR	0.47UF	20%	250V
						C6015	1-161-964-91	CERAMIC	0.0047UF		250V
						C6016	1-161-964-91	CERAMIC	0.0047UF		250V



SERVICE MANUAL

RA-6 CHASSIS

<u>MODEL NAME</u>	<u>REMOTE COMMANDER</u>	<u>DESTINATION</u>	<u>CHASSIS NO.</u>
KP-51HW40	RM-Y909	US	SCC-P65G-A
KP-51HW40	RM-Y909	Canadian	SCC-P65G-A
KP-57HW40	RM-Y909	US	SCC-P65F-A
KP-57HW40	RM-Y909	Canadian	SCC-P65F-A


CORRECTION - 2

SUBJECT: ELECTRICAL PARTS LIST
U BOARD P/N CORRECTION

Correct the service manual as shown.
File this Correction with the service manual.

 : Corrected Item

Section 8: Electrical Parts List (Page 106)

INCORRECT			CORRECT		
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
*	A-1373-851-A	U BOARD, COMPLETE	*	 A-1373-870-A	U BOARD, COMPLETE

COLOR REAR VIDEO PROJECTOR
SONY®

Sony Corporation
Sony Technology Center
Technical Services
Service Promotion Department

English
2002EJ74WEB-1
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SERVICE MANUAL

RA-6 CHASSIS

<u>MODEL NAME</u>	<u>REMOTE COMMANDER</u>	<u>DESTINATION</u>	<u>CHASSIS NO.</u>
KP-51HW40	RM-Y909	US	SCC-P65G-A
KP-51HW40	RM-Y909	Canadian	SCC-P65G-A
KP-57HW40	RM-Y909	US	SCC-P65F-A
KP-57HW40	RM-Y909	Canadian	SCC-P65F-A

CORRECTION - 3

SUBJECT: EXPLODED VIEW PARTS LIST CORRECTION

Correct the service manual as shown.
File this Correction with the service manual.

 : Corrected Item





Section 7: Exploded View (Page 95)

7-1. Cover

INCORRECT

REF. NO.	PART NO.	DESCRIPTION
5	*4-084-568-01	HOLDER, SCREEN (57HW40)
5	*4-084-617-01	HOLDER, SCREEN (51HW40)
7	*4-084-568-11	HOLDER, SCREEN (57HW40)
7	*4-084-617-11	HOLDER, SCREEN (51HW40)

CORRECT

REF. NO.	PART NO.	DESCRIPTION
 5	*4-084-568-12	HOLDER, SCREEN (57HW40)
 5	*4-084-617-12	HOLDER, SCREEN (51HW40)
 7	*4-084-568-02	HOLDER, SCREEN (57HW40)
 7	*4-084-617-02	HOLDER, SCREEN (51HW40)

COLOR REAR VIDEO PROJECTOR


SONY®


SECTION 7

EXPLODED VIEWS

NOTE:

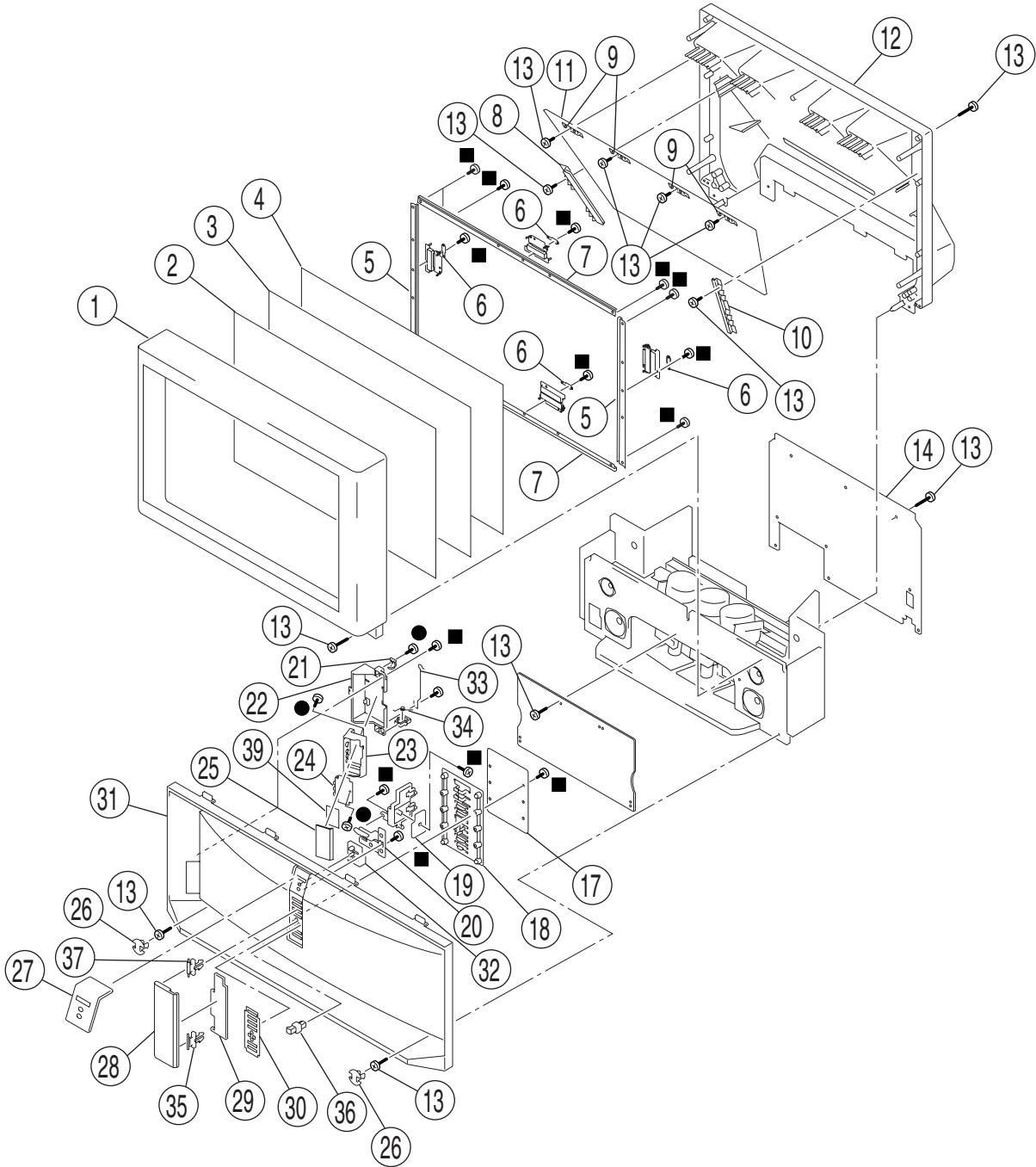
- Items with no part number and no description are not stocked because they are seldom required for routine service
 - The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.



The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

7-1. COVER

: +BVTP 3X12 7-685-648-79
: +BVTP 4X12 7-685-661-14



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	X-4039-325-1	BEZEL (57) ASSY (57HW40)		17	* A-1372-932-A	H2 BOARD, COMPLETE	
	X-4039-331-1	BEZEL (51) ASSY (51HW40)		18	4-082-284-01	BUTTON, MULTI	
2	4-081-951-11	SCREEN (57W), CONTRAST (57HW40)		19	* A-1377-041-A	H1 BOARD, COMPLETE (VAR)	
	4-081-954-11	SCREEN (51W), CONTRAST (51HW40)		20	4-082-283-01	BUTTON, POWER	
3	4-081-949-11	PLATE (57WL), DIFFUSION (57HW40)		21	4-919-393-01	DAMPER	
	4-081-952-11	PLATE (51WL), DIFFUSION (51HW40)		22	4-082-289-01	HOLDER, FRONT TERMINAL	
4	4-081-950-11	PLATE (57WV), DIFFUSION (57HW40)		23	4-082-288-02	BRACKET, H3	
	4-081-953-11	PLATE (51WV), DIFFUSION (51HW40)		24	* A-1372-933-A	H3 BOARD, COMPLETE	
 5	* 4-084-568-12	HOLDER, SCREEN (57HW40)		25	4-083-468-01	DOOR, FRONT TERMINAL	
	* 4-084-617-12	HOLDER, SCREEN (51HW40)		26	4-083-503-01	SCREW CAP, GRILLE	
6	* A-1391-148-A	S BOARD, COMPLETE		27	4-083-732-01	PANEL (HW), FRONT	
 7	* 4-084-568-02	HOLDER, SCREEN (57HW40)		28	4-083-730-01	DOOR (HW), CONTROL	
	* 4-084-617-02	HOLDER, SCREEN (51HW40)		29	4-083-731-01	COVER (HW), CONTROL DOOR	
8	* 4-083-460-01	HOLDER (L), MIRROR SIDE (51HW40)		30	4-084-571-01	LABEL (HW), CONTROL	
	* 4-083-462-01	HOLDER (L), MIRROR SIDE (57HW40)		31	X-4039-326-1	GRILLE ASSY, SPEAKER (57HW40)	
9	* 4-081-501-01	HOLDER, MIRROR			X-4039-332-1	GRILLE ASSY, SPEAKER (51HW40)	
10	* 4-083-459-01	HOLDER (R), MIRROR SIDE (51HW40)		32	4-083-733-01	GUIDE (HW), LED	
	* 4-083-461-01	HOLDER (R), MIRROR SIDE (57HW40)		33	4-084-564-01	SPRING (H3)	
11	4-084-561-01	MIRROR (57) (57HW40)		34	4-083-505-01	SPRING, DOOR	
	4-084-615-01	MIRROR (51) (51HW40)		35	3-703-035-11	SHAFT, LID	
12	* 4-083-466-01	COVER (57), MIRROR (57HW40)		36	4-042-192-01	CATCHER, PUSH	
	* 4-083-467-01	COVER (51), MIRROR (51HW40)		37	4-045-250-01	DAMPER	
13	4-081-063-01	SCREW,DOME WASHER HEX TAP 4X20		39	4-082-290-01	LABEL, FRONT TERMINAL	
14	* 4-084-577-01	BOARD, REAR (57HW40)					
	* 4-084-622-01	BOARD (51), REAR (51HW40)					

SERVICE MANUAL

RA-6 CHASSIS

<u>MODEL NAME</u>	<u>REMOTE COMMANDER</u>	<u>DESTINATION</u>	<u>CHASSIS NO.</u>
KP-51HW40	RM-Y909	US	SCC-P65G-A
KP-51HW40	RM-Y909	Canadian	SCC-P65G-A
KP-57HW40	RM-Y909	US	SCC-P65F-A
KP-57HW40	RM-Y909	Canadian	SCC-P65F-A

CORRECTION - 4

SUBJECT: ELECTRICAL PARTS LIST
P/N CORRECTION ON D BOARD

Correct the service manual as shown.
File this Correction with the service manual.


 : Corrected Item

Section 8: Electrical Parts List (Page 125)

INCORRECT

REF. NO.	PART NO.	DESCRIPTION
D8002	8-719-110-17	RD20ES-B2

CORRECT

REF. NO.	PART NO.	DESCRIPTION
 D8002	8-719-110-53	RD20ES-B2

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SERVICE MANUAL

RA-6 CHASSIS

<u>MODEL NAME</u>	<u>REMOTE COMMANDER</u>	<u>DESTINATION</u>	<u>CHASSIS NO.</u>
KP-51HW40	RM-Y909	US	SCC-P65G-A
KP-51HW40	RM-Y909	Canadian	SCC-P65G-A
KP-57HW40	RM-Y909	US	SCC-P65F-A
KP-57HW40	RM-Y909	Canadian	SCC-P65F-A

CORRECTION - 5

SUBJECT: ELECTRICAL PARTS LIST
P/N CORRECTION/ADDITION ON G BOARD

Correct the service manual as shown.
File this Correction with the service manual.

✎ : Corrected Item

Section 8: Electrical Parts List (Page 98)
G Board (Pages 128-130)

INCORRECT

REF. NO.	PART NO.	DESCRIPTION
IC5006	8-759-504-46	PQ05RF-1
	Needs to be Added	----->
	Needs to be Added	----->

CORRECT

REF. NO.	PART NO.	DESCRIPTION
✎ IC5006	8-759-069-28	PQ05RF-11
✎ D5027	8-719-069-54	UDZSTE-175.1B
✎ R5048	1-216-833-11	METAL CHIP 10K 5% 1/10W

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SERVICE MANUAL

RA-6 CHASSIS

<u>MODEL NAME</u>	<u>REMOTE COMMANDER</u>	<u>DESTINATION</u>	<u>CHASSIS NO.</u>
KP-51HW40	RM-Y909	US	SCC-P65G-A
KP-51HW40	RM-Y909	Canadian	SCC-P65G-A
KP-57HW40	RM-Y909	US	SCC-P65F-A
KP-57HW40	RM-Y909	Canadian	SCC-P65F-A

SUPPLEMENT - 2

SUBJECT: NOTE ADDED TO CLARIFY CRT USAGE

Correct the service manual as shown.

File this Supplement with the service manual.

Please refer to the following note when ordering CRT's:

For S/N's 97000001-98XXXXXX use P/N's on Page 97 of original manual for part replacement.

A-1502-021-A	Coupler (R) Assy, CRT (57HW40)
A-1502-023-A	Coupler (R) Assy, CRT (51HW40)
A-1502-025-A	Coupler (G) Assy, CRT
A-1502-022-A	Coupler (B) Assy, CRT (57HW40)
A-1502-024-A	Coupler (B) Assy, CRT (51HW40)

For S/N's 90000001-90XXXXXX, use P/N's listed on Supplement-1

8-733-648-05	CRT 07MVC41(R) - L (VM) (57HW40)
8-733-650-05	CRT 07MVC31(R) - L (VM) (51HW40)
8-733-652-05	CRT 07MVC21(G) - L
8-733-647-05	CRT 07MVC41(B) - L (VM) (57HW40)
8-733-649-05	CRT 07MVC31(B) - L (51HW40)

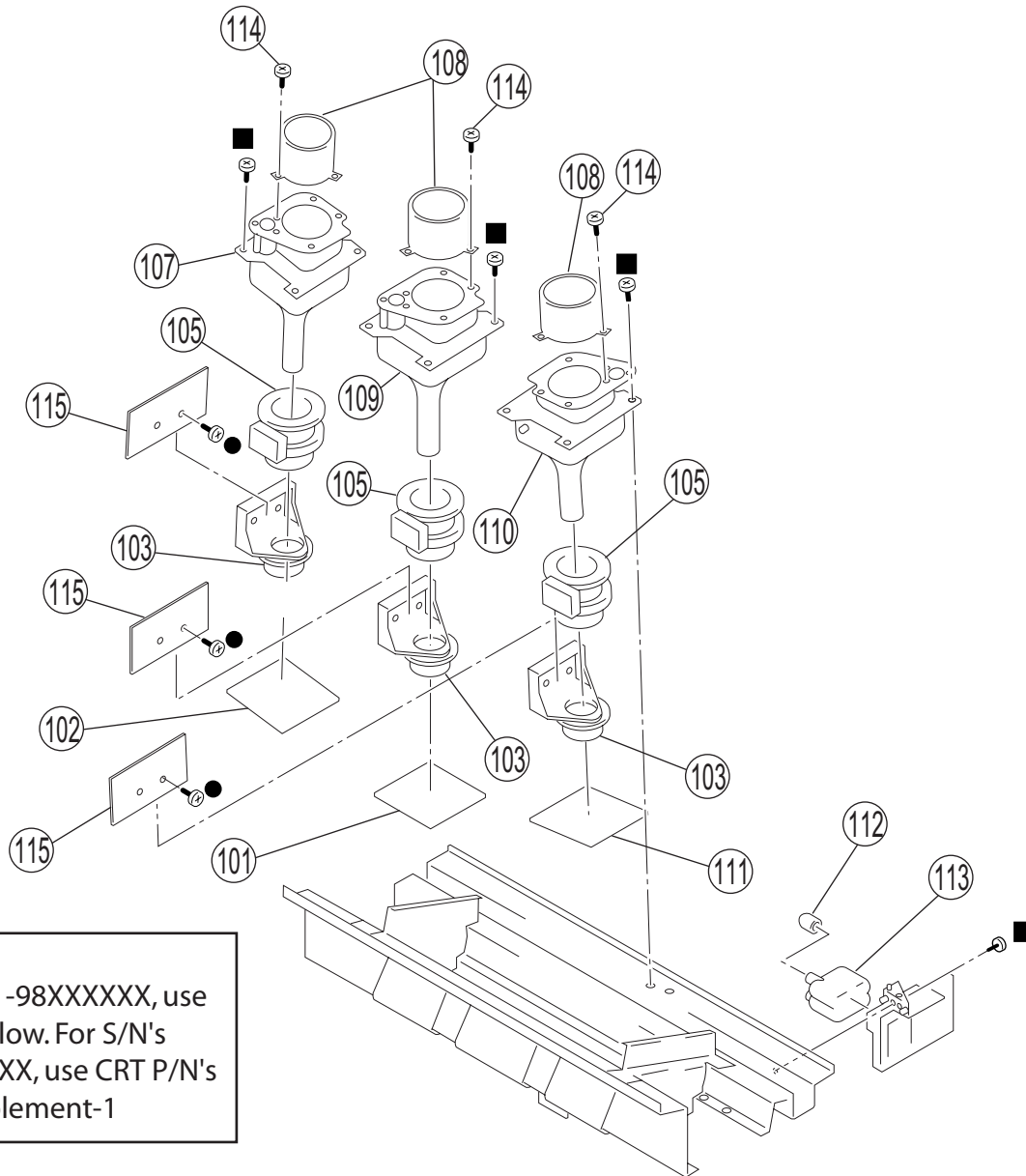
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7-3. PICTURE TUBE

- : +BVTP 3X12 7-685-648-79
- : +BVTP 4X12 7-685-661-14



NOTE:

For S/N's 97000001-98XXXXXX, use CRT P/N's listed below. For S/N's 90000001-90XXXXXX, use CRT P/N's referred to in Supplement-1


REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
101	* A-1332-241-A	CG BOARD, COMPLETE		111	* A-1332-242-A	CB BOARD, COMPLETE	
102	* A-1332-240-A	CR BOARD, COMPLETE		112	4-373-137-01	CAP (Z), RUBBER	
△ 103	1-451-535-11	COIL ASSY, VM		△ 113	8-598-955-31	BLOCK ASSY, HV HVB-1031	
△ 105	1-451-537-11	DEFLECTION YOKE		114	4-052-894-01	SCREW (4X20), HEAD TAPPING	
△ 107	A-1502-021-A	COUPLER (R) ASSY, CRT (57HW40)		115	* A-1342-598-A	V BOARD, COMPLETE	
△ 109	A-1502-023-A	COUPLER (R) ASSY, CRT (51HW40)					
108	4-083-750-01	LENS (DELTA 260)(57HW40)					
	4-083-751-01	LENS (DELTA 250)(51HW40)					
△ 109	A-1502-025-A	COUPLER (G) ASSY, CRT					
△ 110	A-1502-022-A	COUPLER (B) ASSY, CRT (57HW40)					
△ 111	A-1502-024-A	COUPLER (B) ASSY, CRT (51HW40)					


SECTION 7: EXPLODED VIEWS

Components not identified by a part number or description are not stocked because they are seldom required for routine service.

The component parts of an assembly are indicated by the reference numbers in the far right column of the parts list and within the dotted lines of the diagram.

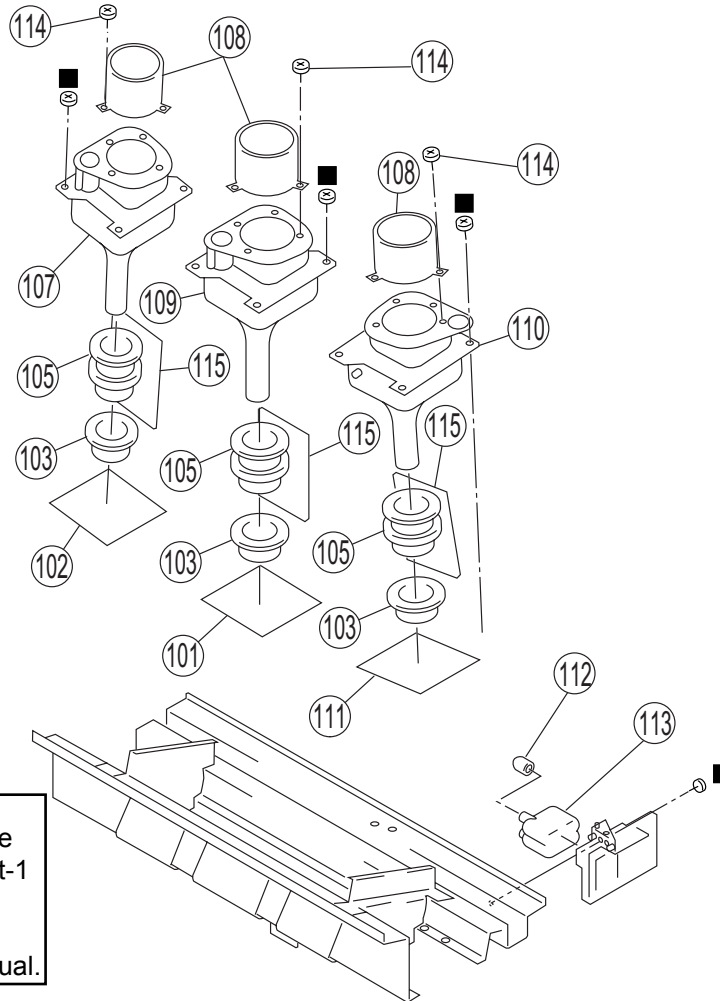
* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.









NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-3. PICTURE TUBE

■ 7-685-650-79 SCREW +BVTP 3X16



NOTE:
For S/N's 90000001-90XXXXXX, use CRT P/N's referred to in Supplement-1 (listed below)
For S/N's 97000001-98XXXXXX, use CRT P/N's listed in original manual.

REF. NO.	PART NO.	DESCRIPTION	[Assembly Includes]	REF. NO.	PART NO.	DESCRIPTION	[Assembly Includes]
101*	A-1332-241-A	CG BOARD, COMPLETE		114	4-052-894-01	SCREW (4X20) , HEAD TAPPING	
102*	A-1332-240-A	CR BOARD, COMPLETE		115*	A-1342-598-A	V BOARD, COMPLETE	
 103	1-452-790-31	2P/4P MAGNET ASSY.					
 105	1-451-537-21	DEFLECTION YOKE					
 107	8-733-648-05	CRT 07MVC41 (R) - L (VM) (57HW40)					
 107	8-733-650-05	CRT 07MVC31 (R) - L (VM) (51HW40)					
108	4-083-750-01	LENS (DELTA 260) (57HW40)					
108	4-083-751-01	LENS (DELTA 250) (51HW40)					
 109	8-733-652-05	CRT 07MVC21 (G) - L (VM)					
 110	8-733-647-05	CRT 07MVC41 (B) - L (VM) (57HW40)					
 110	8-733-649-05	CRT 07MVC31 (B) - L (VM) (51HW40)					
111*	A-1332-242-A	CB BOARD, COMPLETE					
112	4-373-137-01	CAP (Z) , RUBBER					
 113	8-598-955-31	BLOCK ASSY, HV HVB- 1031					